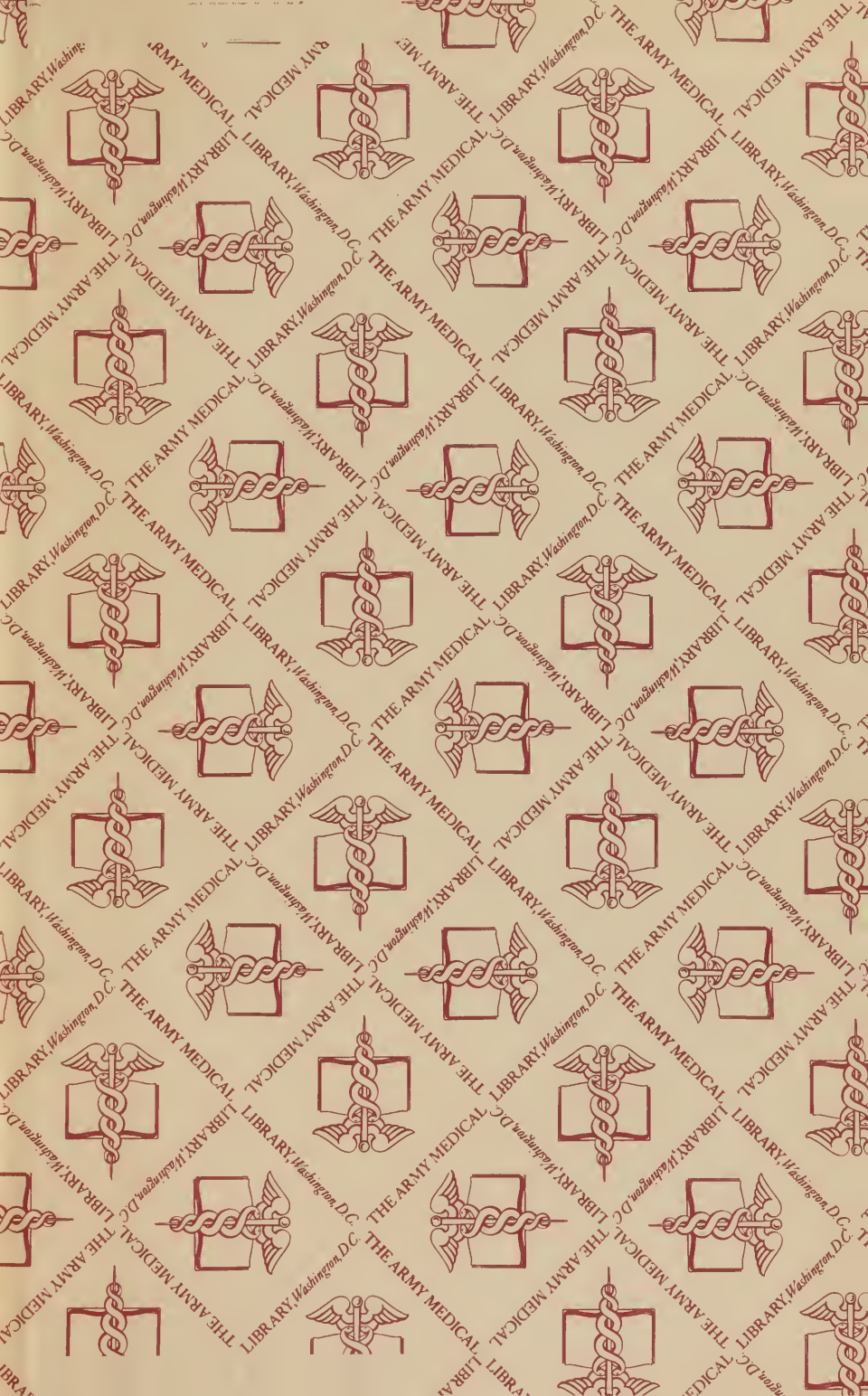
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LECTURES

ON

VENEREAL DISEASES,

By W. F. GLENN, M. D.,

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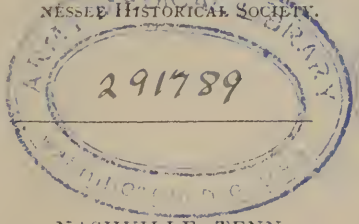
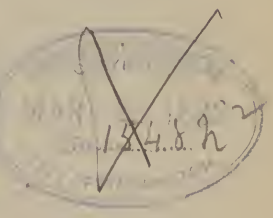
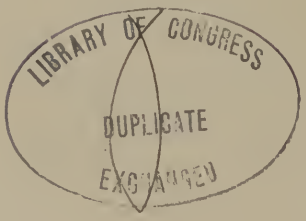




NASHVILLE, TENN.:

WHEELER & OSBORN, PRINTERS, 20 N. CHERRY ST.

1881.



DEDICATION.

EVERY day feeling that what knowledge I may possess of medicine is due to the careful attention bestowed upon me by my former preceptor, and at the same time recognizing with pleasure the fact that much wise and valuable counsel has been given by my venerable colleague, this book is hereby dedicated jointly to Dr. William R. Tomkins and Prof. Wm. P. Jones.

PREFACE.

TWO years since a petition, signed by every member of the class was presented to me, asking the publication of my Lectures on Venereal Diseases. My first thought was to pass the matter by unheeded; but upon frequent requests by letter from members of that class, and personal solicitations from subsequent ones, I concluded that the wish of such an intelligent and generous body of men should not be ignored.

The appearance of this book, therefore, is not due to any assumption of superior knowledge or the eager desire to become an author, but simply to gratify a wish of those gentlemen who have chosen to make Nashville Medical College, (the Medical Department of the University of Tennessee), their alma mater.

W. F GLENN.

No. 11½ Cedar Street, Nashville,
December 25, 1881.

LECTURE I.

PRELIMINARY REMARKS.

GENTLEMEN:—In addition to the subject of anatomy, it is my duty also to teach you something of venereal diseases—a most important, yet by the majority of the profession a most sadly neglected branch. While, with the public, this class of diseases is regarded with a passing laugh, or a feeling of disgust toward, and disrespect for the party affected, at the same time they are genuine diseases, and as important to you as any others in your curriculum. It matters not to you from what source disease is contracted, it becomes an affliction, and often the victim of a venereal disease is a severe sufferer, and an object which deserves the sympathy of every one. I make these remarks in order to guard you against the old and foolish error of hurriedly and thoughtlessly prescribing for diseases of this character. You should, as in all other cases, give the patient a most careful and earnest examination, explain to him as best you can the nature of his trouble, and treat him upon the most enlightened and scientific principles.

While the aristocratic portion of society sneer at persons who may be so unfortunate as to contract

venereal trouble, and shun them as they would a leper, yet we are forced to the conclusion, from observation, that if only those who had never been afflicted in this manner were admitted to respectable society, then the vast majority of the human family would be ostracised.

Now, having your minds fully impressed with the importance of this subject, we come at once to its consideration.

CHANCROID.

In the first place, there are primarily three distinct and separate venereal diseases, viz.: gonorrhœa, chancroid and syphilis. Known ordinarily by the names of false-pox, true or genuine pox, and clap.

Much has been said in regard to this classification; some of the ablest men of the profession holding to the opinion that there are really only two distinct diseases, gonorrhœa and chancre. They claim that the same poison produces soft chancre or chancroid in one instance, and hard chancre or genuine syphilis in another. In other words, they claim unity of the poison, believing that one may become constitutional as easy as the other. Without taking time to discuss this point, I wish to impress upon your minds the dual nature of the poisons—that the one has no connection with the other whatever—the truth of which I leave you to judge from clinics which will be presented from

time to time, and from your own experience in after years.

Chancroid is a purely local affection, and cannot by any possible means become constitutional or change into genuine syphilis. It is called false syphilis, for the reason that it has to *some* extent the appearance of a chancre on the penis, but does not continue through the different constitutional changes as genuine syphilis. The Greek termination *oid* attached to the root of a word always means, similar to. So, chancroid, like chancre but not chancre, varioloid like variola, but not variola, typhoid resembling typus. Chancroid is contracted by actual contact with the poison of an identical character, and while in the large majority of cases this occurs from sexual intercourse, it can be produced on any part of the body if the poison is applied to an abraded surface.

For example, the surgeon in dresssing a chancroid, may have a slight cut or abrasion near the end of the finger, the poison coming in contact with that particular part, produces a disease like itself. Yet when it appears at its usual seat, viz.: on the penis, it is never the result of running against a cart-wheel or mashing between planks, or from a public privy, and all such nonsense as patients would often have us believe. But it is the result of sexual intercourse. Chancroid always appears within ten days after contact. Do not get the absurd idea fixed in your minds that it appears on

the ninth day exactly. I say it appears *within* ten days, it may on the first, second, third or any succeeding day up to the tenth. It generally appears on the second or third day, and in some instances within a few hours after contact. If in the act of coition the penis is slightly torn or abraded, the probabilities are that an intense itching will be felt in a few moments afterward, and from that the chancroid proceeds to develop. So in this case the poison commences its work almost instantly. In this character of cases both the patient and the physician are often misled into the belief that it is nothing more than the result of a hurt during connection, until it advances to such a point as to assume unmistakable characteristics.

I am aware of the fact that some old and eminent authorities report cases appearing fifteen or twenty days from the date of last intercourse. Yet in these cases you have no guide save the statement of the patient. It is my earnest belief, from careful observation and a close review of the authorities of the present day, that it never occurs later than ten days after impure connection.

Then, truly, chancroid has no distinct period of incubation, but may appear at any time under ten days.

We next come to consider the best means of *diagnosis* for chancroid; that is to say, I will attempt to point out the means by which you can distinguish this disease from others.

In the first place, if you could positively ascertain

the fact that the patient has had only one connection within several weeks, and that two or three days afterward he noticed a small ulcer on some portion of the glans or prepuce, that of itself would be almost positive evidence that he was suffering with chancroid.

Since, however, there are very few men who abstain longer than one or two weeks, most of them, especially in large cities, having intercourse at least once every twenty-four hours, they cannot tell from which connection the sore was produced. And again, I am sorry to say, that patient's statements are not at all reliable in regard to such things. So, under the circumstances, the length of time between its appearance and the poisonous connection cannot often be ascertained.

Then, this means being destroyed, we have others by which we are enabled to judge of the character of the disease. A patient presents himself with something wrong on his penis. Upon examination we find a small ulcer, which at first appears as a pustule, in a short time ruptures, the little, thick viscid fluid it contains escapes, leaving a small ulcer, with irregular or jagged edges. It is uneven all over its surface. When left alone it increases in size rapidly, even going so far (in its worst forms) as to eat off the entire glans penis. It secretes a thick purulent fluid, which is often so abundant as to drip rapidly from underneath the prepuce when the penis is exposed for exam-

ination. The matter secreted from a chancroid coming in contact with other and healthy portions of the mucous membrane of the penis, inoculates them, and consequently produces other chancroids.

If a person suffering first with one chanroid is not particularly cleanly, the secretion from it will in the course of a few days cause numbers of others to appear; so, instead of one, he has many. This is most common in persons who have long foreskins, and those with whom cleanliness is not next to godliness.

Again, in chancroid the lymphatic glands in the inguinal region are very liable to inflammation of a severe type. A few days after the appearance of the ulcer, or it may be almost simultaneous with it, soreness in the groins is noticed. When the patient's attention is directed to this fact he finds considerable enlargement in one or both groins, which is exceedingly tender to the touch. It is hot, throbbing and painful, and has all the characteristics of ordinary inflammation. Induration or hardening of the lymphatics is entirely wanting, though there is a feeling of tension in the tissues surrounding—the result of congestion or purulent infiltration.

But genuine induration is absent in the lymphatics, and also at the base of the ulcer. Inflammation of the neighboring lymphatics is not always present with chancroid, but when they are affected,

it is always of an inflammatory nature, and prone to suppuration.

A chancroid and a chancre may appear at the same time and on the same site. In such instances the diagnosis of the chancroid is somewhat difficult, while the chancre is often easily detected.

Another important means of diagnosis is *auto-inoculation*. That is the matter taken from a chancroid and placed on an abraded surface of any portion of the body of the person already affected with the disease, will result in the rapid formation of another chancroid, showing conclusively that the disease is not a blood disease, but purely local, and the result local-specific ulceration. Auto-inoculation is rarely resorted to in the present age, since it is not usually difficult to recognize the nature of the disease by careful examination.

Now, then, to summarize, we find the guides in diagnosis of chancroid to be,

1. Appears within ten days after contact, and first appears in form of a pustule, afterward becoming an ulcer.

2. The ulcer eats or advances rapidly, and secretes abundantly a purulent matter.

3. The secretion inoculates the neighboring healthy mucous membranes, causing the ulcers to multiply.

4. The edges are irregular, of a rough or jagged appearance, often undermined.

5. The appearance is white, whitish-gray, yellow, or worm-eaten.

6. Induration of either the base of the ulcer or neighboring ganglia is entirely absent, while a slight hardness from infiltration may exist in both.

7. The ganglionic enlargement is of an inflammatory nature, generally resulting in the formation of pus.

8. Auto-inoculation succeeds.

The only disease for which chancroid is likely to be taken, is chancre or genuine syphilis; the differential diagnosis between them will be fully discussed in connection with syphilis.

The *prognosis* of chancroid, on the whole, is very favorable. With ordinary cleanliness the disease will generally get well of itself. It being purely a local affection, even in its worst forms, does not directly injure the general system, but limits its ravages to the organ affected.

In some cases the entire glans-penis is destroyed, and when the ulcer is located in the anus, it sometimes extends far up the rectum, resulting in stricture of that organ, with all its painful and distressing results.

From the sloughing of a phagedenic ulcer, large blood-vessels may be opened, and dangerous hemorrhage ensue.

It is proper to state, in this connection, that while the penis, in the great majority of cases, is the por-

tion of body affected with chancroid, it is by no means the only place.

The accoucheur may, in delivering a diseased woman, bring the end of an abraded finger in contact with the virulent matter, and thus contract chancroid of the finger, or in the same way, other portions of the hand may be inoculated. Chancroid of the scrotum also occurs from contact. Also the rectum, which, in some cases, proves a very serious trouble.

In short, any portion of the body coming in contact with the poison is liable to be affected. The mucous membranes are more easily inoculated than the unabraded skin. I doubt not but that a sound, healthy skin will resist the action of the local irritant entirely, for the reason that the epithelial cells are piled one upon the other to a considerable thickness, and from exposure to the atmosphere are rendered dry and hard. On the other hand the mucous membranes being shut in from any great degree of exposure, and in addition, kept constantly moist, their epithelial covering thereby softened, renders them more easily irritated.

A very favorable location on the penis for chancroid is on or just beneath the prepuce behind the glans penis. In persons with long foreskins the ulcers nearly always appear on the mucous surface of the prepuce, and can only be seen distinctly by drawing it back behind the glans.

Afterward, any portion of the glans coming in

contact with the secretion is, of course, likely to be inoculated, and become ulcerated.

Chancroid sometimes appears on one side of the frenum, and in such instances generally ulcerates entirely through, so that a small probe or straw can be passed, without pain, in at one side and out the opposite. Chancroid may and does appear in the mouth of the urethra, and often eats off the lips until the meatus presents a funnel-shaped appearance. In this location it is apt at first to be mistaken for gonorrhœa, yet it soon advances to a sufficient degree to show the true nature of the disease. The differential diagnosis between this affection and gonorrhœa is not usually difficult, the soreness being localized in chancroid more than in gonorrhœa.

LECTURE II.

TREATMENT OF CHANCROID.

GENTLEMEN:—At at our last lecture we attempted to lay certain guides before you by which you could readily distinguish chancroid from other diseases. Now, with those points fully established in your minds, you are naturally eager to know what are the most appropriate and proper means to be used for its relief and cure.

Let me say, in the outset, that the treatment must differ, to some extent, according to the severity of the disease. Surrounding circumstances, such as the condition of the patient's general health, habits, etc., must also be taken into consideration.

Simple chancroids occurring in persons of ordinary health do not require the same active, heroic measures that we are often compelled to resort to in a more severe type of the disease. Some, in fact the majority of the profession, think that every chancroid, regardless of its nature, must, when first seen, be "*touched*" with the most powerful caustics, otherwise it will prove a most serious affair, probably causing the patient to lose the head of the penis. Others, through sheer ignorance, make their patients believe that they must be burnt severely in

order to catch the disease, and prevent it from "*getting into the blood.*"

This latter method is the stronghold of quacks throughout the country. They are often a very shrewd class of men, and when a patient presents himself with a simple chancroid, they, *probably*, recognizing the nature of the disease, give him the most positive assurance that by taking "*a little medicine*" for two or three weeks, and having it burnt thoroughly, the disease will be prevented from entering the general system, or "getting into the blood," and, therefore, it will never return. The patient, much to be pitied for his ignorance, is delighted because he has found a man who has the "*balm of Gilead*," and he is willing to pay any price for the services of such an able physician. He is given some harmless internal remedy, and the chancroid is treated locally, which, of course, disappears, and after paying an enormous fee for the very great privilege of being duped, he goes on his way rejoicing. The disease being local, as a matter of course, does not occur on other portions of the body, and the healed man never ceases to sound the praise of this "giant in medicine."

It is in this case as in many others in the world, men pronounce another very wise because they have not sufficient intelligence to distinguish intellect from arrogance and pomposity. Then, with the understanding that all chancroids do not tend to rapid destruction, but that this disease, like others,

in the majority of instances, inclines to run through a regular course, and then to recovery, we proceed:

If a person presents himself with a small chancroid upon some portion of the penis, which has not grown *very rapidly*, and otherwise he is a man of average good health, regular habits, etc., then your directions would be, first and foremost of all, perfect cleanliness.

You cannot fully appreciate how difficult it is to get patients to make a sufficient application of pure water in such cases. Men who would become highly insulted should you tell them they were not cleanly, will allow their disease to become greatly exaggerated by neglect of this measure. The penis should be thoroughly washed at least two or three times a day with warm water and bi-carbonate of soda. I prefer soda to soap, for the reason that soap forms a lather which, when mixed with the greasy sections of the chancroid and natural secretion from the glands behind the head of the penis, become difficult to wash out of the folds of the prepuce. The bi-carbonate of soda being alkaline, renders the water soft and pleasant, mixes with the oily secretions, and in a chemical way cuts off the secretion thoroughly. Of course, this is an insignificant point since the object is to cleanse the penis thoroughly, the means used not being of so great importance.

Perfect cleanliness, together with care that the

secretion may not inoculate neighboring parts, will, in cases of simple chancroid, effect a cure. Patients not only desire it, but it is our duty to rid them of disease as rapidly as possible. So, while cleanliness alone, with a piece of raw lint placed over the ulcer after each washing, will generally affect a cure, yet there are many simple remedies we can use which will greatly hasten recovery. To the class of remedies known as astringents belong many of our most important and useful remedies in such cases. In addition then to cleanliness we direct the patient to use the following:

Sulphate of Zinc, gr. ij to iv.
Sulphate of Morphia, gr. ij.
Aqua Rosæ, ℥i.
M.

Dampen a small piece of lint with this mixture, and lay on the ulcer. Change the lint three times daily. Lint can be, in most instances, easily held in place by simply drawing the foreskin behind the glans, placing it over the ulcer, and then rolling the foreskin forward over it.

In cases where, naturally or from circumcision, no foreskin exists, it is necessary to retain it in position with a wrapping of some soft cloth.

If the dressing can be retained by the prepuce, it is unnecessary to wrap the penis with cloth, in fact it is injurious, since it keeps it too warm. You can use, instead of the above recipe, any other mild astringent wash which might be preferable. For ex-

ample, solutions of tannin, acetate of zinc, sulphate of copper, acetate of lead, nitrate of silver, carbolic acid, etc.

Powdered tannin, alum, sugar of lead or iodiform dusted over the parts are used to a very great advantage. Under such a plan of treatment in addition to the observation of ordinary hygienic rules, you may expect a simple chancroid in a person of average health to improve rapidly. If, however, the person affected is of a scrofulous diathesis, or the subject of consumption of the lung or bowel, or in a broken down condition from any cause, the disease is more obstinate in its nature, and apt to assume a more malignant form. Under such circumstances the general system must be built up also.

In addition to the local treatment, administer internally iron, in some form, quinine in small doses, nux vomica, or strychniæ, cinchonidia and gentian, either in the form of tincture or powder or solid extract.

Let me here give a prescription which I have found to be the very best tonic in a broken system, with loss of appetite, nervous prostration, and general weakness:

Sulphate Quiniæ, ʒii.
Reduced Iron, ʒi.
Ext. Nux Vomicæ, gr. xv.
Ext. Gentian, ʒss.
M., and make 30 pills. One three times a day.

These pills are especially beneficial where the

system is simply enervated from over work, loss of sleep, or excessive sexual intercourse. In cases of phthisis, or scrofula, they are not so valuable, since the enervation depends upon a specific cause. In such instances, it is well to administer cod liver oil in connection with hypophosphite of lime, or soda, or both.

I find the preparation known as Baker's Emulsion to be a most admirable preparation, holding, as it does, its ingredients well together, and almost disguising the disagreeable taste of the oil entirely. Of this you should give one tablespoonful three or four times daily, about an hour after eating. If the patient can take pure oil well, and, in fact, prefers it to the emulsion, there is none better than "Fougera's Iodinized Cod liver oil," taken in doses of one teaspoonful to a tablespoonful three times daily, after eating.

Again, if a patient continues to eat of greasy food, and drinks abundantly of alcoholic liquors, it often becomes a difficult matter to relieve a simple chancroid. For, instead of the disease tending toward recovery, it inclines to grow worse. It is, therefore, of the greatest importance that you urge the patient to abstain from such articles of food and drink—*especially the drink*. Now, I do not mean you should, in anywise, starve him, or put him on a low grade of diet, but I simply mean that he should eat the right character of food. He should have as much as he wants

of good, rich, nourishing, non-stimulating food. The starving process is extremely injurious, since it weakens the reparative powers of the system—the very thing you wish to avoid.

All chancroids do not progress so smoothly as those of a simple variety. Numbers of the cases which come under observation, either from delay and neglect, or from irregular habits, have advanced to such a point that cleanliness, with the simple dressing already mentioned, will not arrest the progress of the disease. The ulceration has become so extensive, burrowed so deeply, or grown so obstinate, that the action of the specific poison must be arrested at once by more potent remedies. Then the first thing necessary is to apply chemically pure nitric acid carefully to the ulcer until its entire surface is thoroughly crisp. The manner of applying this acid is of the utmost importance, since it is necessary that the virulent ulcer be completely cauterized, at the same time avoiding injury to the healthy tissues. If you make a mop by wrapping cloth on a piece of wood, you are sure to allow the acid to run down on the healthy tissue, and produce considerable pain and unnecessary soreness. If you dip a steel instrument in the acid, it is immediately ruined by the chemical action following the contact of the metal. I once saw a physician dip a fine probe (made of steel) into a bottle of nitric acid, for the purpose of cauterizing a chancroid. On withdrawing it from the bottle,

he noticed the instrument bubbling or "frying" as it were. He not only ruined his probe, but instead of nitric acid, he had fresh nitrate of steel.

The best means of applying, is to dip a solid glass rod, rounded at the end, in the acid, shake it gently against the sides of the bottle, and then touch the sore. A piece of wood, trimmed down to the proper size and shape, or an ordinary match with the phosphorus broken off, will answer also.

The object of such cauterization is to completely destroy the specific poison, thereby arresting its action. If successful, the result will be that the diseased tissue, which is killed by the action of the acid, will slough away, leaving nothing more than a simple non-specific ulcer. The chancroidal ulceration is gone, but the simple sore caused by the slough remains. You then apply the same dressing as recommended to simple chancroid, viz.: astringent solutions, with patent lint.

If one cauterization fails to accomplish this purpose, then you should repeat it, until the desired result is obtained. It is as necessary, however, for you to know when not to "burn" as to "burn." If after the slough from the first application the ulcer has a bright-red appearance, coated with a thin serous secretion, and bleeds easily to the touch, then it has been cauterized sufficiently.

The clean, red appearance is caused by the healthy granulations which spring up immediately after the slough. The ulcer is naturally large after

the application of the acid, by reason of the dead tissue separating from the living, and coming away. Then do not make the common mistake, of becoming alarmed, because the sore is larger a few days after cauterization than before, and freely apply the acid to an already healthy surface.

That method of procedure, which is alone the result of ignorance, will never benefit, but on the contrary, would do harm. The chancroid would be destroyed, but instead you will have, what I term, a nitric acid ulcer, which you continue to enlarge by the continued applications.

You must simply understand your business, and know from the appearance of the sore, whether it is a healthy or a virulent one. Whether the cautery has been applied one, two or three times, after the diseased tissue is thoroughly destroyed, you have nothing left to treat, save a sore exactly similar to one which would be made by applying the same cautery to healthy structure. In case nitric acid should not prove sufficiently potent to destroy the poison, then we will be compelled to resort to a more powerful caustic. The one best known (except the actual), and one which in my hands has never failed to kill the diseased tissues, and rouse the parts to reparative action, is carbo-sulphuric paste. It is prepared by saturating willow charcoal with pure sulphuric acid. The paste should be kept in a bottle with a glass stopper, and this kept standing in a tumbler or some other glass vessel to

receive the moisture which is apt to collect around the stopper and mouth of the bottle, and flow down its sides. The great advantage of this preparation is the facility with which it reaches every nook and corner of the ulcer, completely cauterizing it in every part. It should be applied with a glass rod or piece of crockery. It is highly recommended by Ricord, Cullerier, and others. While the profession are pretty well a unit as to the necessity of cauterizing in obstinate and phagedenic chancroids, at the same time they differ in some respects in regard to the caustic to be used.

Of course every one has the right to choose which he will use, based upon his own judgment of what is best for the patient; at the same time that judgment should be directed by a thorough and scientific study of the disease. The selection should not be made through prejudice, ignorance and old-fogyism. I wish especially to refer to the use of nitrate of silver, either in the solid form or in solution. This substance is simply a superficial caustic, and does not possess the property of penetration. When a stick of nitrate of silver is applied to any ulcer, its action is that of a very mild and superficially escharotic. It produces a whitish eschar, which is never deep. It acts by uniting with the albumen, which it coagulates at once. When, therefore, the albumen on the surface comes in contact with silver nitrate, it forms a whittish, tough layer of tissue at once over the surface of the

ulcer. "It will but skin and film the ulcerous place, while rank corruption mining all within, infects unseen."

In Bartholow's Materia Medica and Therapeutics, under the physiological action of nitrate of silver, we find the following passage, which fully shows the folly of applying it to chancroids:

"Nitrate of silver acts chemically on the tissues to which it is applied. It combines with the albumen, and excites a superficial inflammation, producing in some subjects vesication, in all a whitish eschar. It is, therefore, an escharotic, but of very limited activity."

I wish to give you, as my opinion, that nitrate of silver is an excellent remedy in its place, but for cauterizing chancroid, it is worse than useless. It is true, there are many simple chancroids which are touched with it that do get well; but they would do so as well without. In the treatment of this disease you either need no caustic at all, or you need a most powerful one.

In some of the most severe cases it becomes necessary to use actual cautery in order to arrest its progress.

When the ulcer is located in the urethra, a small piece of lint should be pulled to pieces and dipped into whatever astringent solution that you desire to use, and inserted by means of a blunt pointed probe. It is also of benefit in such cases to syringe gently with the same solution

before inserting the lint. It is best not to insert the point of the syringe, but hold the lips of the meatus open, and throw the fluid in against the ulcer.

Before leaving this subject, there is one other remedy which I should mention as being beneficial in a certain variety of chancroid, or more properly the remains of what was originally chancroid. You will find some old ulcers remaining, after thorough cauterization, without much tendency to increase in size, or on the other hand to get well, all of the usual remedies have no affect whatever—the ulcer remains the same, to the great annoyance of the patient. In such instances I have found an ointment made of red-precipitate (red-oxide of mercury) and simple cerate a most invaluable remedy. I am aware of the fact, however, that the local or constitutional application of mercury to chancroid does no good, but is sometimes harmful, as is stated by the best authorities of the present day.

These are not chancroids, but rather a species of indolent ulcers which remain after the chancroidal poison is completely destroyed.

In concluding this subject, and before entering upon the complications which may attend chancroid, allow me to say, that as far as my experience goes (which accords with that of others), as a dressing to a simple ulcer, or an obstinate (one after cauterization,) there is nothing equal to iodiform. It, without any doubt, does more to promote healthy gran-

ulation than any other known remedy, while it is at the same time disinfectant. When a chancroid is located in the fold between the glands and frenum, it is difficult usually to arrest. The head of the penis should be held steady, and the frenum pulled away from it, when the acid is applied, in order that it may reach every portion of the ulcer. If a hole is already made through the frenum, it is then best to cut it entirely apart with the scissors or knife, and afterward thoroughly cauterize. This simple operation is followed by considerable hemorrhage, which is, however, controlled by the caustic.

LECTURE III.

COMPLICATIONS OF CHANCROID.

There are some few complications that may accompany chancroid, which must be taken into consideration in connection with it. Those deserving notice are phimosis, paraphimosis, lymphangitis, bubo and phagedena.

While it seems hardly possible to have an ulcer without more or less inflammation, yet uncomplicated chancroid does not present the characteristics of ordinary inflammation.

From want of cleanliness, irregular habits, excessive use of alcoholic stimulants, etc., a chancroid may become violently inflamed, and involve much of the surrounding tissue. When inflammation attacks a sub-preputial chancroid, the tissues of the prepuce become very much swollen from the accumulation of a large quantity of serum. Inflammation of the superficial lymphatics is the cause of these phenomena. If, in such a case, the prepuce is very long and naturally lies in front of the glans, inflammatory phimosis will be the result; if behind it, inflammatory paraphimosis. By phimosis, we mean, that condition of the prepuce in which the glans cannot be exposed. By paraphimosis, that

condition in which the prepuce cannot be drawn forward over the glans. You can readily see that if an ulcer existed on the under surface of the prepuce, with the existence of an inflammatory phimosis, that unless the complication could be relieved, it would be impossible to perfectly apply the necessary local treatment. On the other hand, if an inflammatory paraphimosis should exist, there would be greatd anger of strangury, resulting in gangrene, with extensive sloughing of the prepuce and glans. In the treatment of either of these complications, the edematous condition should be relieved by making a number of punctures in the prepuce with a sharp bistoury, which will allow the accumulated serum to flow out. You should then (if possible) keep the patient quiet, and direct the frequent application of warm water with bi-carbonate of soda in it. Leeching is also of benefit in reducing the inflammation. The application of sugar of lead water is also of advantage. Evaporating lotions will also be found of great value in reducing the swelling. For example:

R.,
Alcohol, ℥ii.
Aqua Dest., ℥iv.
Sulp. Morphiæ, gr. ii.
M. Apply.

In the mean time, the chancroid should be treated as best it can by injections under the prepuce, of whatever remedy may be preferred.

I have obtained the very best results from the use of an ointment made of

Iodiform, ʒss.
Simple Cerate, ℥ss.
M.

I direct the patient to keep as quiet as possible, wash the secretion away by injecting plain warm water under the prepuce, then place a good size piece of this ointment underneath; the penis being kept up against the abdomen. The natural warmth of the parts softens the ointment, and the iodiform is applied directly to the ulcer. This should be repeated at least two or three times each day. When the swelling is so great that it is impossible to cleanse beneath the prepuce on account of the small aperture, then the glans is very apt to become excoriated, and many new chancroids form by auto-inoculation, which often involves the meatus urinarius, resulting in its stricture from cicatricial contraction.

The chancroids, now numbering many, and being closely confined, are apt to take on gangrenous inflammation and consequent sloughing to such an extent as to cause the loss of a considerable portion of the head of the penis. In such instances your course is plain. You must, without fear or delay, split open the foreskin, or circumcise the patient, cauterizing at once the chancroids, and afterward apply iodiform freely.

If in a case of inflammatory paraphimosis the swelling fails to be reduced, but on the contrary becomes so great, or continues so long as to threaten to cut off the circulation from the glands, you must act also with decision and promptness, and divide the strictured portion of the prepuce with the knife. The skin of the penis will be thrown into folds tightly swollen, and covering over the strictured portion. These should be drawn back until you come in view of a portion which seems to bury itself in the substance of the penis immediately behind the glands. The knife, which should be very sharp, is then applied to cut this band in two. If cutting in one place does not relieve the tension, you can divide it at three or four different points, and the prepuce pulled forward over the glands.

The next complication to which we call attention, taking them in the order named, is that known as lymphangitis, or inflammation of the lymphatics of the penis.

There are two varieties of lymphangitis which may complicate chancroid, namely: simple and virulent.

In simple lymphangitis there exists one or more hard chords on the top or sides of the penis, with or without several small elevations or lumps along their line. These are the thickened lymphatics usually caused by inflammation of the connective surrounding them, and can be plainly felt underneath the skin, to which they are sometimes adherent.

If the superficial lymphatics become involved, then the skin becomes swollen, red, hot and tender. When the inflammation is severe, and the hard cords very tender, erection of the penis becomes exceedingly painful.

The termination of simple lymphangitis is by resolution and suppuration. By resolution, we mean that the inflammation gradually subsides, the symptoms all soon disappearing without any unpleasant effect.

When suppuration takes place, the little abscess or abscesses discharge an ordinary non-virulent pus, after which they rapidly heal.

When, on the other hand, chancroid is complicated by virulent lymphangitis, all of these symptoms exist, but in a far more aggravated degree. The inflammation runs high, the cords are very tender and painful, and the little lumps quickly become abscesses. The matter discharged from them is virulent, and is auto-inoculable. If a small portion of this pus be placed upon an abraded surface, on any other portion of the body, it will produce a chancroid. After it is discharged from the little abscesses, they do not heal readily, but become genuine chancroids. Now then you can readily see the difference between these two varieties of lymphangitis. One is the result of simple inflammation of a sympathetic character, as it is commonly called. There is a sore on the penis, and the adjoining lymphatics are excited. This occurs in the

same manner that the lymphatics along the forearm, arm and axilla become tender from an injury, or an abscess of the hand or fingers.

Perfectly harmless, and for want of a better word to express our meaning, we call it *sympathy*. The pus from an abscess of this variety is then, of course, like that resulting from any other simple inflammation.

The other is the extension of a specific disease to the lymphatics of the part by a direct absorption of the poisonous matter from the chancroid coming in direct contact with these vessels, they are at once inoculated, owing to the irritating properties of the poison applied to a serous membrane, a high grade of inflammation is at once set up in the ducts as well as the glands. This inflammation goes on rapidly to suppuration.

In the treatment of simple lymphangitis, if the inflammation is mild, no special treatment is necessary. Direct the patient, for his own comfort, to apply cold water frequently. It will relieve the hot sensation, and to some extent subdue the inflammation. Resolution soon takes place without any treatment, and consequently there is no necessity for alarm.

If, on the other hand, the inflammation be violent, the patient should be required to keep still, and the penis kept up against the abdomen, not allowed to hang down between the thighs. Cold water and evaporating lotions should be applied freely, when recovery may be soon expected.

If abscesses form, they should be freely opened, after which they heal rapidly.

In a case of virulent lymphangitis you should also use cooling and evaporating lotions, and enjoin quietude upon the patient. After the little abscesses are opened, they should be treated as any other chancroid. It is best to cauterize them thoroughly, and then use iodiform as a dressing.

When I gave as my opinion, a few moments since, that the chancroidal was absolutely absorbed by the lymphatics, and they were inoculated by this means, many of you, no doubt, said to yourselves, why then could not chancroid become a blood disease and produce constitutional symptoms?

Many, who claim the unique nature of the poison, might use the argument, that if the poison is absorbed by the lymphatics, and carried a certain distance, and inoculates them, why is it not possible for it to enter the blood, and produce constitutional symptoms.

I can only answer that question in the simplest, most common-sense manner. The very fact that when it enters the lymphatics, the only evidence we have, is its local effects on them, is, to my mind, positive proof that the poison is a local irritant, but not a blood poison.

The idea seems to be with many, that if they can demonstrate the fact that chancroidal matter is ever *absorbed*, then the unity of the poison is at once established. I freely admit, that, to a greater or less

extent, it may be absorbed. Yet I most positively deny its power to produce syphilis either constitutional or local. Such reasoning is as absurd as to talk of the poison of scarlet fever generating measles, diptheria or Asiatic cholera.

The next complication of chancroid to which we look, is *phagedena*. In nearly all works upon venereal diseases there is a variety of chancroid mentioned, as the phagedenic. Yet phagedena does not belong exclusively to chancroid, but is a separate and distinct condition, which may and does complicate any other ulceration or wound, just as easily as it can chancroid. It is only a peculiar condition of the system of the person affected, which may exist from the beginning of the chancroid, or may complicate it at any time thereafter. By taking the matter of a phagedenic sore, and placing it on an abraded surface in a healthy person it does not produce a phagedenic ulcer.

On the other hand, if a person already suffering with a phagedenic ulcer, have a simple chancroid produced upon him, it is very liable to take on phagedena. This shows that it is not inoculable, but is a condition of the system, which is entirely personal. Among the pre-disposing causes may be enumerated all things that tend to depress the vital powers and impair nutrition, for example, old age, mental anxiety, excessive use of alcoholic stimulants, malaria, indigestion, excessive sexual intercourse, want of sleep, sedentary habits and scrofu-

lous affections. We will often, however, find phagedena occurring in persons of apparent perfect health. Stout, robust, rosy-cheeked men, who are surrounded by all the comforts of life, are attacked by it as well as the poor and impoverished.

Among the most prominent of the local causes is filthiness. It is also claimed by Ricord that the application of mercurial ointment is a frequent cause of phagendena; while I have known of many cases in which this application was made, I have never noticed any special tendency to the development of phagedena more than in others.

LECTURE IV.

COMPLICATIONS OF CHANCROID.—Continued.

GENTLEMEN:—There are only two varieties of phagedena, viz.: the sloughing and the serpigenous. When sloughing phagedena attacks chancroid, the tissues beneath it become swollen, hard, and livid for some distance around—the discharge becomes scanty and thin, may be tinged with blood. The ulcer grows dry, and a gray, brown or black, (most generally a brown) slough is formed. By this time the patient suffers sharp burning pain, something similar to that which attends the line of demarcation in mortification. If the slough is superficial, it separates from the living tissues at once; if deep, it comes away very gradually, causing great pain. Afterward there is a cessation, for a time, in the process. The part becomes less irritable and tender, and the patient feels a decided relief. You may think that now the sore will soon heal, and all will be well, but this is not the case. This is only a period of rest, for a longer or shorter time, when a new slough commences to form, with all the symptoms of the former one attending it, pursuing exactly the same course. In this way one slough after another may take place until large holes are dug out in the head of the penis.

Sloughing phagedena does not respect any tissue, but treats all in the same merciless manner. It may and does open blood vessels, and cause thereby serious hemorrhage. It may destroy the entire penis and testicles, together with a considerable portion of the perineum in the male; the labia and perineum in the female. In such cases it is a most horrible disease, both for patient and physician, marching, as it does, straight on, destroying everything in its way, and baffling the most skillful and scientific efforts to arrest its progress.

Fortunately, these severe cases are rare. It generally remains superficial, and while it advances in one direction it is healing in the opposite. In the severer forms, however, it occasionally produces death, either by peritonitis, or by long suffering and fever, exhausting completely the vital powers.

In *serpigenous phagedena* we have an entirely different state of affairs. While the sloughing variety either yields to treatment, or kills the patient in a short time, the serpigenous is not so fatal, but is far more lasting. Neither the nature nor the cause of serpigenous phagedena is known any more than that of the sloughing. Like the sloughing, it cannot be transmitted to one person from another by inoculation. It, in nearly every instance, occurs in persons of broken down constitutions from a want of a sufficient supply of nutritious food. Consequently it is confined almost exclusively to the lower classes of society, and when it attacks the better

classes at all, it is of the mildest type. The ulcer spreads over an unusual amount of surface, loses its original shape, by the edges becoming eaten and irregular, and a little more than the ordinary time is required to heal it. In this variety there is nothing troublesome to the patient or surgeon save that the ulcer seems to remain stationary for a considerable length of time without becoming much worse or any better. When such is the case it is always best to explain to the patient the nature of the disease in full. Otherwise, after the disease has about run its course, he concludes that you cannot cure him, goes to another physician, he soon recovers as he would have done before, and while you deserve his praise you receive his condemnation. Genuine serpigenous phagedena commences as a swelling in the borders of the chancroid, which seems to take on an increased inflammation, and becomes much more red than before. There may be some slight constitutional disturbance at the outset, such as a feeling of langour and general debility, together with slight headache. These general symptoms may or may not be present. There is either a slight or severe burning felt in the advancing edge of the ulcer. The disease is one which destroys the life especially of the connective tissue underneath the skin much easier than the skin itself, consequently the edges of the ulcer are considerably undermined. In this way sometimes the entire skin of the penis is literally dissected up with

an occasional hole through it, giving it decidedly a dead and worm-eaten appearance. It even goes farther than this. It may, and often does, extend for some distance down the thigh or around the crest of the ilium, or, more rarely, upon the abdomen, making large pouches of loose skin in these localities. While it thus advances in one direction it heals in another, so that it gradually bores its way over a long distance, lasting in some instances for many years.

There is a case on record which had existed when reported fourteen years. This shows that while it does not kill like the sloughing variety, yet its duration is incomparable. It does not, like the sloughing, disregard every variety of tissue, eating everything in its way, but it sticks close the areolar or connective tissue and skin. It never gets beneath the deep fascia, and a change of tissue will often arrest its progress. It will dissect out the blood vessels and nerves without injuring them, save by exposure. You can look into an ulcer of this variety and discover the vessels and nerves exposed as clearly as though it had been exposed in the dissecting room.

LECTURE IV.

COMPLICATIONS OF CHANCROID.—Continued.

GENTLEMEN:—Serpigenous phagedena seldom advances on a mucous membrane from without. Of course it may commence in the vagina from a chancroid in that locality; then it attacks the membrane, but it seldom, if ever, enters the vagina or rectum, when it has started from without. While this process is going on, the sore still retains the characteristics of a chancroid. It remains of a grayish color, the secretion is still abundant, but is thin, and generally tinged with blood. While phagedena cannot be transmitted by inoculation, the chancroid can be. Now notice the differences between these two varieties of phagedena when placed side by side.

The one, forms slough after slough, attacking any or all tissues, often sweeping away the entire penis, causing death by loss of blood, peritonitis, or nervous exhaustion, and requires prompt and efficient treatment. The other moving along slowly and steadily, confining itself chiefly to the connective tissue, never going deep, respecting blood vessels and nerves scrupulously, rarely endangering life, and enduring a long time whether treated or not.

The *treatment of phagedena* should be of a two-fold nature—that directed to the general constitutional treatment, and that to the ulceration itself—local treatment. As in all other diseases where there is great waste of tissue, every means should be used to build up the system. Cod liver oil will be found to be a most valuable constitutional remedy. If the appetite is wanting or insufficient, the tonic pill mentioned in a previous lecture, of nux vomica, reduced iron, solid extract of gentian, and quinine, with the addition of rhubarb or podophyllin if constipation be present.

The preparation known as tartrate of iron and potash is highly recommended by Ricord as an internal remedy in phagedena. He considered it almost a specific.

It should be given in from five to twenty grain doses in solution three times a day. If the patient is of a scrofulous type, the use of alcoholic stimulants will be of great benefit in addition to what has been mentioned. Red wine, champagne, good apple brandy, egg nog, milk punch (especially egg nog), will be found extremely beneficial in this class of cases. Opium has been highly recommended in the treatment of phagedena, and is relied upon exclusively by some practitioners. It is given in pill form in from one-fourth of a grain to one grain twice or three times a day. It is claimed by its advocates that it not only relieves the pain, but arouses a healthy action in the affected parts.

I have always succeeded better with other means, where internal remedies were required. Local remedies, however, are far more useful and efficient than general. Yet I would not have you discard the one for the other, but where it is necessary use both. Let me impress upon your minds that the local treatment of phagedena, in order to be successful, must be of the most potent and heroic character. No physician who fears to make skillful use of the most powerful caustics can hope to relieve a patient of phagedena.

Then the very instant we become convinced that a chancroid is taking on phagedena, we should, while it is yet small, arrest its course by applying, chemically pure, nitric acid, carbo-sulphuric paste, chloride of zinc paste, or (if the case requires it) the red or white hot iron, which is termed "actual cautery." If a small chancroid takes on phagedena very early, the pure nitric acid will, in most cases, arrest it. Should it fail, however, and the disease seem inclined to progress steadily, then you had better resort, at once, to the use of the carbo-sulphuric paste, or actual cautery.

If you should ask, taking everything into consideration, which is preferable, we would answer, that the best results are to be expected from the actual cautery, where it can be thoroughly applied.

There is more than one kind of actual cautery, and we have preferences among them. The white hot iron is generally sufficient to destroy the disease,

yet, in obstinate and unyielding cases, there are some objections to its use. It gives off its heat so readily to the tissues and surrounding atmosphere, that it will cauterize one part severely while the last portion of the ulcer touched will not be sufficiently impressed. This can, however, be avoided by having two or three small, irons and using one after another on the different parts of the ulcer.

When used in this way there is no better remedy known. Where it is convenient, however, the electro-cautery or the naptha cautery is the most perfect, since a uniform heat can be kept up throughout the entire operation. There are many cases which present themselves, in which the extent of the disease is so great that the use of actual cautery is inadvisable, owing to the possible destruction of the genital organs. Under such circumstances, we prefer the carbo-sulphuric paste, which should be packed closely over the entire diseased part. You should take a wooden or glass spatula, and with it carefully spread the paste over the sore to the thickness of one-eighth of an inch, being sure to press it down to the bottom of all the excavations made by previous sloughing. There is a certain amount of care necessary in the preparation of the sore for cauterization in order to be successful. Whether the actual or potential be used, the ulcer should first be thoroughly cleansed with warm water, then the overhanging edges should be trimmed away with scissors. In places where

there are sinuses which run under the superficial tissues opening at different points, you should cut the intervening tissue so as to throw the openings into one, and clearly expose all the intervening structure. Having thus thoroughly exposed the entire diseased part, the sore should be sponged over with a weak solution of carbolic acid, or a strong solution of bi-carbonate of soda, which cuts away all secretion that may be over the surface, and gives it a clean whitish appearance.

This finishes the preparation, and if the patient has not been previously put under the influence of ether, he should be now. After he is brought completely under its control, the cautery should be applied in the manner already described.

It matters not whether it is intended to apply the hot iron or the caustic paste, it should not be attempted without the aid of an anesthetic, from the fact that the operation is exceedingly painful, and on the writhings of the patient make the cauterization more or less imperfect. Unless it is done well it is useless to attempt it at all. The disease must be thoroughly and completely killed if you wish to succeed. As I described before, if the caustic paste be used, it should be spread evenly over the entire diseased part, pressing it down firmly so as to go to the bottom of all depressions, and perfectly cauterize them as well as the elevated points. Be careful not to let it overlap the healthy skin surrounding the sore, but fill it up

even with it. The surrounding healthy parts should then be well greased, either with simple cerate, olive oil, vaseline or carbolate of glycerine. A piece of patent lint cut to the proper size and shape should be laid over the paste, a piece of neat cotton (absorbent the best) placed over that, and the entire dressing secured by an evenly applied roller bandage. Care must be taken not to apply the bandage too tightly, as the penis will most likely swell and cause a great deal of unnecessary pain thereby. The dressing should be removed in from ten to twenty hours, the parts thoroughly cleansed with warm water, and afterwards treated as a simple ulcer; that is, with mild astringent washes or iodiform, which has been mentioned in another connection. During the ten, twelve or twenty hours that the paste is on, it may be necessary to use morphine, or some other anodyne, to relieve the pain. Sulphate of morphia and chloral hydrate combined in solution, to be given according to the necessities, is very useful.

LECTURE V.

COMPLICATIONS OF CHANCROID.—Continued.

In those cases where the disease has extended over so much surface that cauterization would extend too deeply, and do more harm than good, for example: where the rectum is largely involved, or in the female, where you fear the cauterization will cause a slough through the walls of the vagina into the rectum or bladder, you will be compelled to resort to other means.

Again, where the phagedenic ulceration has undermined so much skin that it would be unsurgical to cut it away, for example: where the entire integument of the penis or perineum is undermined, you will be deprived of the benefits of cauterization. In all such cases your chief remedy is the abundant application of powdered iodiform, together with great cleanliness, and a special regard for general hygiene.

The *hot water* treatment has proven to be more successful in phagedena than any other remedy. It is applied in the following manner: A large tub of water at the temperature of 98° Fahrenheit is placed in the patients's room every morning. The patient is then stripped and allowed

to sit in the water on a folded blanket, large sponge, or better still, a rubber cushion. A second cushion should be placed between the back and the tub. The water should be kept at the same temperature throughout the day, and the patient must remain in it with the parts completely submerged. A blanket should be fastened around the neck and allowed to hang over the body on the outside of the tub. At night the ulcer should be thoroughly packed with idiform, and a soft roller bandage applied. On the following morning the patient should again go into the bath without disturbing the dressing, allowing the water to soak it off, which it will easily do. This same regular course is repeated every day until the ulcer is healed, or at least all phagedenic appearance is gone.

The tartrate of iron and potassium, as recommended by Ricord, should be given internally during this water treatment. When this plan is properly carried out, the disease is generally cured in from five to ten days. It is very troublesome to the patient, but it is so sure in its results, that it fully repays for the annoyance. This treatment may be applied to phagedenic ulcers located on other parts of the body with the same success.

The next and last complication of chancroid, to which we invite your attention, is that known as bubo. By bubo, we mean that inflammation which attacks the inguinal lymphatic glands, generally resulting in suppuration. We have two distinct

varieties of bubo, just as we have of lymphangitis, namely: the simple or non-virulent and the virulent. By the *simple* or *non-virulent* bubo, we understand that the glands are affected, from what is commonly known as sympathetic inflammation, the nature of which was described in considering the subject of non-virulent lymphangitis. The symptoms of non-virulent bubo are the following: At any period during the existence of a chancroid one or more glands, on one or both sides (generally one gland only, one side being affected) begins to feel tender. The patient notices that his groin is a little sore and upon examination he finds a slight enlargement, which is tender to the touch. A day or two later he finds that the pain has increased so as to seriously interfere with his walking, the enlargement becomes greater, and more tender, from day to day, with considerable heat in the part. By this time it has become exceedingly painful, and is a source of very great annoyance. At this stage the inflammation may begin to subside; all of the foregoing symptoms gradually disappearing until the painful affection is entirely gone. But more frequently the termination is different. Instead of abating, the inflammation still increases, the pain becoming almost unbearable, when it finally terminates in the breaking down of tissue, and the formation of pus. Owing to the amount of structure involved, the groin is now very much swollen, for a considerable extent, or prominent

only in one single small place. In either instance the enlargement has the resiliency by which we know that fluid is on the inside. That is, instead of feeling hard and firm to the touch, it now gives upon pressure, resuming its shape instantly, when the pressure is removed.

You will have no trouble in recognizing a bubo, but be always certain that you will find fluid before putting the knife in it, otherwise you will inflict pain without affording any special relief.

Let me impress upon you just here that a simple or non-virulent bubo can and does often exist without being connected in any manner with chancroid. They can come from a hurt to the glands in that particular locality, from gonorrhœa, or spontaneously. It matters not what may be the cause, the symptoms, course and treatment are the same. I mention this fact in order to warn you against the ignorant practice of referring all inguinal glandular enlargements to a venereal origin.

There are two sets of superficial lymphatics in this locality; one arranged in a row or chain immediately along Ponpart's ligament, the other below it. The chain above is connected directly with the lymphatics of the genital organs, while that below is in direct connection with those of the lower extremities. So you can easily see that if a sore penis will cause the ones above to sympathize and become inflamed, so a sore upon the foot, leg or thigh may cause the same thing in

those below. Consequently we sometimes find an inflamed inguinal gland resulting in suppuration from a piece of glass or nail stuck in the foot; or from a sore caused by the pinch of a tight shoe or boot. While the result is the same in both instances, the cause is different.

The treatment of a sympathetic bubo is very simple. After it has gotten fairly under way, it is useless to attempt to abort it or scatter it, as it is commonly called. In the very beginning, we can often relieve it by the free application of tincture of iodine, or a saturated solution of iodide of potassium, once every day. They are very prone to suppurate, however, which they many times do in spite of all efforts to stop them. After trying the iodine for a day or two without relief, it is best to encourage suppuration by warm applications, such as hot water and poultices, in order to bring it to a speedy termination. After matter has fully formed, the knife should be used freely in order to allow its escape. Do not be reckless in its use, yet when it is necessary to resort to it, do not be timid about it. Be sure to cut deep enough to enter the suppurating gland, and not just through the integument. It is not necessary, as recommended by some, to make an incision the full length of the enlargement, making a great hole which is often difficult to heal afterwards; but more should be done than just to stick the instrument in and withdraw it. An incision

must be made of sufficient extent to allow an easy escape of the purulent matter, no more and no less. Having opened the bubo you should then apply some simple dressing, secured by a bandage, until the sore is entirely healed. I have found the ordinary basilican ointment, mixed with carbolic acid in the proportion of twenty grains to the ounce, an excellent application. The daily use of a weak solution of carbolic acid, say ten grains to the ounce of distilled water, or a fifteen grain solution of nitrate of silver, are useful also. If the opening appears obstinate in healing, the free use of iodiform or salacyllic acid is almost an unfailing remedy, used as an ointment, or, better, in the powdered form.

The manner of retaining the dressing of a bubo is a very necessary piece of knowledge. Take a narrow strip of soft cloth, say about seven or eight feet long, apply the middle to the patient's back, allowing both ends to hang even in front. Then with one extremity or tail of the bandage in the right hand, the other in the left, you cross them twice over the region of the bubo, having previously applied the dressing and laid a large piece of batted cotton over it. Next, you carry the ends of the bandage backwards around the upper part of the thigh, then bring them forward again, embracing the thigh, and cross twice over the cotton, carry upwards and backwards around the waist, encircling it once or twice, then tie the ends to-

gether rather tightly, and you have a complete lace over the bubo, which does not press unpleasantly upon it, at the same time it allows the patient to walk with perfect freedom, and will not slip for twenty-four hours. If there is an enlarged gland in each groin, you simply have the bandage two or three yards longer, and having applied, in the manner described, over one, instead of tying, you carry it from the waist in the same manner over the opposite side, and then tie as before.

By *virulent bubo* we mean that the virus from the chancroid has been carried through the lymphatic ducts from the sore on the penis to the neighboring glands. Here the poison is lodged or halted, and the consequence is that the same results follow as upon its first contact with the penis. In other words, the gland itself becomes the seat of a chancroid, which causes great inflammation and enlargement. The plain fact is, that even if absorbed into the general circulation no constitutional symptoms can result further than would be produced by the absorption of pus from any ulceration. Chancroidal poison is not a blood poison—finds no nourishment or support there, and therefore cannot produce any blood troubles. Its nature is purely and solely a local irritant poison, and therefore its effects must be local or not at all. The earlier symptoms are about the same as in the non-virulent variety. After suppuration has taken place, instead of the

opening healing, as in an ordinary abscess, you have a chancroid with all its usual symptoms attending. So, instead of yielding to the simple measures instituted in the non-virulent variety, without proper care, the edges of the opening begin to ulcerate, thereby enlarging the opening at a rapid rate. The treatment is that of chancroid, namely, thorough cleanliness, with abundant application of iodiform, or salacyllic acid in powder.

If the ulcer manifest obstinacy, then the application of nitric acid or carbo-sulphuric paste must be resorted to.

It is well to remind you here, that phagedena may attack these ulcers as easily as any other, and should be treated as phagedena wherever you may find it.

Now a few words upon the subject of chancroid in the female, and we leave this subject. In this sex their location may be on the labia majora, labia minora, in the fourchette, on the walls of the vagina, or on the cervix uteri.

They are most frequently found on the labia or in the fourchette, often on the outer portion of the walls of the vagina, rarely on the cervix uteri, and very rarely on the back part of the upper wall of the vagina.

One peculiarity I wish you to note carefully, is that upon the labia majora they very frequently make their appearance as an abscess, and when those little abscesses rupture, and the virulent matter

they contain is discharged, the opening does not heal readily, but continues to ulcerate—in other words becomes a chancroid.

Often in prostitutes you will be called to treat these abscesses of the labia majora. In such cases you will find all the symptoms of ordinary inflammation. One labia, or it may be both (though I have never seen but one affected at a time), greatly swollen, hot, very painful, and showing all the symtoms of the presence of matter. In fact, it it is a genuine abscess of the labia, and when lanced gives relief. Yet that is not all of it. It is an abscess, but not a simple one, it is a virulent abscess caused by the presence of chancroidal material. So after the matter is discharged, the ulcer must be treated as a genuine chancroid, which it is.

Now, having laid before you in as clear and concise a manner as I am capable, all important points in connection with chancroid and its complications, their diagnosis, prognosis, and treatment, I leave you to determine in future years the value of the suggestions made.

LECTURE VI.

GONORRHŒA.

GENTLEMEN:—I invite your attention tonight to the consideration of a disease which will cause you more trouble than almost any other that you will be called upon to treat. A disease which, while *generally* easy of diagnosis, never fatal *per se*, at the same time seems to baffle, in some instances, every attempt at a cure. That disease is gonorrhœa. In commencing the study of this subject we will divide it as follows:

1. What is its nature? 2. How is it contracted? 3. Its diagnosis and prognosis. 4. Complications. 5. The most appropriate plan of treatment.

First, then, what is the nature of gonorrhœa, or, as it is commonly called, *clap*. It is truly and properly a venereal disease, affecting the male urethra or the female vagina or urethra—sometimes both. It is the result of the action of a local irritant poison applied directly to the affected part. The disease is purely local in its action, does not, nor cannot become constitutional under any circumstances whatever.

Upon this subject, it is but proper to state that

there is a difference of opinion. Some of our ablest writers believing that the disease has in some instances a constitutional development in the form of gonorrhœal rheumatism. Nevertheless, I am of the opinion that this disease can be explained upon other and more rational grounds than the absorption of the specific poison of gonorrhœa. I must, therefore, impress upon your minds that there is no such thing as constitutional gonorrhœa. That it commences as a local affection and remains a local affection all through its course.

How is it contracted? Gonorrhœa is only produced by actual contact with the specific virus belonging exclusively to itself. The most common way this contact is produced, is by the sexual act; however, there is a bare possibility of an application of the poison being made through other means. You will often hear of gonorrhœa being caught from the seat of a privy, or from wearing others' clothes, and in some without any cause whatever; the patient informing you that he has had no sexual intercourse, nor "worn any clothes but his own, nor even sat on a privy seat." He would have you believe that the disease came spontaneously, that perhaps it was contracted from an impure atmosphere, from straining, and so on.

I say that in regard to the disease being conconveyed by mediate contagion, while there is, perhaps, a possibility of such a thing, yet I am free to say that I do not believe there is one case in

a million of specific gonorrhœa contracted in any way than by sexual intercourse.

The reason you hear of this variety of cases is because the patients who have them tell you falsehoods, and you can credit the apparent mystery to a want of honesty on their part. You will rarely, if ever, find a minister of the gospel who acknowledges to the truth in regard to such things. The generally attempt to convince the physician that he is wrong in his diagnosis, that it cannot possibly be gonorrhœa which is affecting him, since he has taken no risk whatever. Failing in this, he finally solves the whole thing, remembers that he had sat on a hotel water-closet seat some few days before, and in that way he now knows the disease was contracted. In almost every instance of this kind you may rest assured (preacher of the gospel as he is) that he is wilfully lying. But you will meet with some few who occupy high positions in the pulpit, when they come to consult you, will give you all the light possible on their case, boldly and manfully acknowledging to the truth.

You may be slow to believe that this disease is so rarely contracted except by sexual contact, but I say to you now, without fear of contradiction, *show me a man who has never had sexual intercourse, I care not how bad his habits are otherwise, and I will guarantee that man has never had gonorrhœa, nor will he ever have so long as he is virtuous.*

Now, then, we clearly understand that for a man

to have gonorrhœa he must have had sexual intercourse with a woman who had gonorrhœa at that time.

This now brings us to the third division of our subject, namely:

DIAGNOSIS AND PROGNOSIS.

In order that you may understand how to form a correct diagnosis in this disease, I will proceed to give you the symptoms of an uncomplicated case, which is allowed to run its course without therapeutic interference.

A man has connection with a woman at a certain time, after which he cleanses the penis as thoroughly as circumstances will admit. The next day he feels perfectly well, on the second or third day, however, he feels a very slight tingling sensation in the urethra, when he urinates, with an occasional itching about the meatus urinaries. In a few hours afterward there is moisture about the meatus, which at first is so slight as not to cause any inconvenience, but which rapidly increases in quantity until it becomes very annoying.

The character of the discharge also changes markedly in a short space of time. From a thin, pale, yellow fluid, it becomes a thick, bright yellow, or yellowish-green, sticky fluid.

I would call attention here, to the fact, that the green tinge is not so well marked as some authors

appear to indicate. At first glance the color is of a bright-yellow character, but upon close observation, especially if the matter is spread thinly upon a cloth, a slight greenish caste is noticed.

With this increase of the flow there is a corresponding exacerbation in all the other symptoms, the abundant discharge being an evidence of great inflammation. There is a feeling of great heat throughout the course of the urethra, and especially near the meatus. It is often so tender that the patient can hardly bear for anything to touch the glans penis The lips are generally swollen, red and and pouted. The slight itching or tingling sensation upon micturition has given place to a sharp, severe burning, technically known as *ardor urinæ*, which is confined to the anterior portion, near the meatus. The urine is not changed so as to produce greater irritation than normally, but the mucous membrane of the urethra, over which it passes, has become so violently inflamed, so much abraded, that normal urine proves a powerful irritant.

To illustrate: You can place your finger in weak solution of common salt, without any unpleasant sensation, whatever, so long as the skin is perfectly sound. But peal off a small portion of the epithelial covering from that finger—in other words abrade it, and then apply even a *very* weak solution of common salt, and you find it produces a sharp, smarting pain. The principle is exactly the same

in both cases, the urine, in addition to containing salts in solution, that are irritating, is normally acid, which would be, in itself, a sufficient irritant to an abraded surface.

This ardor urinæ is most painful just about the close of the act of micturition, not so violent during its free flow.

The discharge is more abundant and the pain is greater about ten days or two weeks after the commencement of the disease. At this time the inflammation is sometimes so violent that the whole penis throbs at every beat of the heart, and the pain accompanying micturition is so great as to produce very severe nervous chills, approaching convulsions. After this period the symptoms abate, the ardor urinæ gradually passes away, painful erections are less frequent, the discharge slowly diminishes, the desire to urinate is not so frequent, and finally at the end of three or four weeks there is no sign left, except a more or less abundant yellowish-white or milk-whey discharge. This ceases in two weeks more, provided no stricture exists, which, however, if present, may keep up the discharge for months or even years. It is from this regular course that gonorrhœa has been divided into three separate and distinct stages by older writers. The first four days, considered as the first stage, the second week, when the inflammation is so great, the second and the declining stage, the third. Being the regular course of a specific inflammation I can see no

necessity for the strict division into *stages* that is urged by some.

Gonorrhœa is not likely to be confounded with but three other diseases, namely, simple urethritis, chancroid in the urethra, and chancre in the urethra. Chancroid being a purely local affection, the poison if lodged in the urethra is usually very close to the meatus. The ulceration by its rapid progress soon shows itself on the lips externally, and thus places the diagnosis beyond all doubt.

Before its appearance externally, however, by a very careful examination the presence of a concealed chancroid can soon be discovered by the following symptoms—the lips are very violently inflammed, the discharge very abundant from the ulceration of the disease, great tenderness in the first half inch or inch of the urethra upon pressure, which does not exist in the posterior part of the canal. This subject has been fully, and I hope clearly discussed while upon the subject of chancroid.

The differential diagnosis between gonorrhœa and primary chancre, located in the urethra, is very much the same as those of chancroid, with the exception of the period of incubation and of the induration accompanying syphilis, which will be explained in connection with urethral chancre. Simple urethritis, as it is termed in contradistinction to specific, then, is the only remaining disease for which we are likely to mistake gonorrhœa.

My own views upon this disease are to some extent different from what you find in most books upon this subject. By that I mean to say that I do not believe there is any point of difference by which the one may be distinguished from the other, save the cause of the inflammation, or, in other words, the source from which the disease was contracted. Most authorities would lead you to believe that urethritis (as they term it) is in every respect very much milder than gonorrhœa. I am satisfied, after a very careful observation for a number of years, that such is not the case. On the contrary, some of the very worst cases of apparent gonorrhœa which have come under my observation, have proven to be simple urethritis and not specific gonorrhœa. To illustrate, I will relate the history of one case as a type of many others which have come under my care within the last few years.

Mr. ——, about forty years of age, married, of good sound constitution, consulted me in March about a disease possessing all the characteristics of gonorrhœa. He was somewhat at a loss to account for its appearance, since he had had no connection "that could have produced it." Upon inquiry I found that he had visited a widow of high standing and good repute some three days before its appearance. *He* was *sure* that no one else had connection with the lady, but him; he had been with her pretty regularly from once to twice a week since a short time after her husband's death. Not-

withstanding these facts, I assured him that to all intents and purposes he had gonorrhœa, and must be treated for such. The inflammation in this case ran so high, and involved the whole lining of the urethra so quickly, as to compel the gentleman to take his bed, which he was not able to leave for nearly two months. He was called upon to pass urine every ten or fifteen minutes for about three weeks, which felt each time, to use his words, "like hot lead." He had frequent spasm of the neck of the bladder, necessitating the introduction of a catheter. For several days there was considerable febrile reaction, loss of appetite, general debility and nervous prostration. The left testicle also became inflamed, and remained very much enlarged for about six weeks.

It is, perhaps, necessary to state that this condition was not caused by neglect in any manner. He resided some miles from the city, and while confined to his bed (which he took three days after I saw him) he was under the care of his family physician, who gave him every attention, and applied every remedy from which relief could be expected. Nothing, however, seemed to influence the disease in the remotest degree; the inflammation ran a long and severe course, finally subsiding spontaneously, leaving a slight stricture, which still keeps up a thin, sticky discharge. It so happened that just about that time I was called to see the woman from whom he contracted the disease.

I found her threatened with miscarriage of about a three months' fœtus. One week before she had lifted some furniture, which caused a considerable uterine hemorrhage at the time. She kept her bed one day, the hemorrhage ceased, and she thought all was well. The night following this gentleman had intercourse with her.

I found the woman did not have any signs, whatever, of gonorrhœa, and upon close inquiry, without her knowing what I wished to ascertain, also discovered that she had not, at any time previous. Now, then, the question was, how did the man contract his terrible urethritis?

I am certain it was caused from the hemorrhage of the womb, with which, perhaps, passed portions of the membranes of the little fœtus. The woman had been lying quietly in bed all day without cleansing the vagina. Blood and secretions were decomposed and remained in and around the neck of the uterus and among the vaginal folds.

It was from this source, then, that the mucous membrane of Mr. —— meatus became violently irritated and inflamed, which inflammation travelled rapidly back to the neck of the bladder, producing all the painful and troublesome symptoms just related.

This was a case of simple urethritis, which is mentioned to show that such cases are not milder than specific gonorrhœa, and this is but a type of numbers of others which are occurring daily.

So, then, when a man has simple urethritis, so far as he is concerned, he has gonorrhœa, the only difference being that in one the disease is contracted by contact with the matter of a specific gonorrhœa, and in the other from other causes, the result being the same in both instances. So it is of no practical necessity to differentiate between the two diseases, unless as a point of jurisprudence, where you wish to decide whether or not a woman has specific gonorrhœa.

LECTURE VII.

COMPLICATIONS OF GONORRHŒA.

GENTLEMEN:—In describing the symptoms of gonorrhœa in our last lecture, I gave you the course of a typical, uncomplicated case of ordinary severity. Before entering upon our subject for to-day it is proper to impress your minds with the fact that, even in specific urethritis, the disease is much more severe in some cases than in others. The course and symptoms which I gave you are those of the average cases that you will meet. The course of either specific gonorrhœa or simple urethritis is not always regular and uniform, but sometimes complicated by other troubles which interrupt its course, and often render it a very painful affection. The complications that may arise are, chordee, balanitis, epididymitis, folicular abscess, orchitis, prostatitis and cystitis. By chordee we mean that painful and unpleasant tendency of the penis to become erect, and as it does a very hard pulling is felt along the under surface, which draws the organ so forcibly as to cause a bend or crook in it. Along the course of the urethra feels firm and hard, as if a chord was there, consequently we have the name

chordee. The cause of this bending and painful erection is very simple, plain, and easily understood. The inflammation is at first confined to the mucous membrane of the urethra, but usually at the end of the first week it runs so high that it involves the tissue in which the urethra is imbedded, namely: the corpus spongiosum. The corpus spongiosum is simply a network of little veins held together by a small amount of areolo-fibrous tissue. This areolar tissue becomes inflamed, a plastic material is poured out which glues the little veins together. When the penis becomes erect (which is simply a normal congestion) the little veins all fill with blood and distend, except this small portion, which is so glued together that the vessels cannot expand, consequently we have the painful pulling. It is proper to remind you of the course of the arteries of the body of the penis, also, in this connection. You will remember that a great number of these vessels, before terminating in the veins, have a twisted or spiral course, very similar in appearance to a cork-screw, and are called the helicine arteries. When the penis becomes sufficiently filled with blood to cause an erection, these little arteries are straightened, thereby accommodating themselves to, or more properly, allowing the increased length of the organ. During the inflammation of the areolar tissue of the corpus spongiosum, these twists are glued together so as to prevent their being straightened, and con-

sequently assist in producing chordee. You may ask why does the penis always bend downward and never upward? I answer, for the simple anatomical reason that the urethra lies along the lower part of the penis, and consequently the parts immediately around are nearer the lower than the upper part; and further, the natural tendency is to rise up toward the abdomen during erection, and any interference or opposition to erection would, of course, pull in an opposite direction; consequently the bend is downwards. Then chordee is but perfect erection of the larger portion of the penis, while a small part cannot be distended.

Balanitis is a simple inflammation of the glans penis, caused by contact of decomposed matter with the mucous membrane. It may, and does complicate chancroid and chancre, and often exists from retention of the natural secretions underneath the prepuce.

It rarely affects persons who have no foreskin covering the glans. When a long foreskin exists, any secretion being confined by it, decomposing, becomes a powerful irritant to the mucous membrane of the glans. In balanitis the glans penis is very red and hot, itches intensely, and is somewhat swollen.

Treatment.—The first thing necessary is cleanliness, and next, application of mild astringent washes. The parts should be well washed with water, containing a small quantity of bi-carb. sodæ,

then rinsed with pure water. A small piece of lint dampened with any of the following solutions, and appled, will speedily affect a cure:

R.
Nitrate of Silver, gr. viij.
Aqua Dest., ʒi.
M.

R.
Sulphate Zinci, gr. iij.
Sulphate Morphiæ, gr. iij.
Aqua Rosæ, ʒi.
M.

R.
Sugar of Lead, gr. iv.
Morphia Sulp. gr. iv.
Aqua Dest. ʒi.
M.

Any other mild astringent wash will answer, but these are the ones generally used. The application should be made (after cleansing) at least twice daily. You may also use as a powder over the inflamed surface dry calomel, sub. nitrate of bismuth, dry white lead, or iodiform.

Follicular Abscess.—You will often find, especially in cases of gleet, a small abscess is formed underneath the urethra on one side of the frænum, just behind the glans penis. It at first feels hard, like a buck-shot, underneath the skin, becomes very tender, and finally bursts and discharges a small quantity of purulent matter. Left alone, they rarely heal entirely, but generally result in a little fistula about the size of a broom-straw, which opens into the urethra and externally.

If seen before the matter has been discharged,

they should be opened freely, and a portion of their edge cut away entirely, so that the wound will heal by granulation, and, thereby, prevent the fistula. After the fistula is formed, the external opening should be greatly enlarged, and nitric acid applied, or still better, apply a strong galvanic current to the whole fistulous canal, by means of a small wire electrode, attached to the positive pole of the battery. *Remember, the continuous current, not the interrupted*, must be used.

We next come to consider jointly the complications known as *epididymitis* and *orchitis* which, in plain language, means inflammation of the epididymis and inflammation of the testicle. As a rule, either of these complications occur during the latter stages of gonorrhœa, and in gleet, while in some exceptional cases the inflammation of the epididymis comes on simultaneously with that of the urethra. There are some cases on record, in which the first appearances of gonorrhœa was inflammation of the testicles, which lasted some two or three weeks, and as it subsided, then the existence of the urethral discharge became manifest. The epididymis is often inflamed without involving the substance of the testicle, but the testicle is never complicated without the epididymitis also. In other words, you may have epididymitis without orchitis, but you do not have orchitis without epididymitis; but I may say, that both being literally speaking, the same organ, the symptoms and treatment the

same, it seems like a distinction without a difference. We will, therefore, describe it from now on, under the one name of orchitis.

A patient can often tell that orchitis is approaching for some hours before the testicle begins to swell, by certain premonitory symptoms.

At first there is a slight uneasiness along the course of the spermatic cord, with an occasional shooting pain in the groin. In from twelve to twenty-four hours there is a sense of increased weight in the testicle, which has become slightly swollen. This slight inflammation rapidly increases, the testicle becomes very much swollen, hot, tender, and very hard. The pain has become so great that the patient is unable to go about, or even to bear the pressure of his pants, so he prefers to remain undressed and keep quiet.

Sometimes there is a severe chill, followed by high fever at the commencement of the attack. Constipation, of the most obstinate character, is always present, and occasionally difficulty in urinating is experienced. As the inflammation of the testicle runs high, the discharge from the urethra ceases rather abruptly, only, however, to return again upon the subsidence of the orchitis.

Orchitis is not usually (strictly speaking) an extension of the inflammation from the urethra into the testicle through the ejaculatory ducts, but a metastasis, that is to say, the inflammation suddenly changes locality from the urethra to epi-

didymis or testicle. The principle is the same as orchitis, resulting from mumps, notwithstanding the parts affected are located more nearly each other in one instance than the other.

The symptoms of orchitis are so well marked and so entirely different from other affections of the testicles, that the diagnosis is very easily made. I am sure no physician of the most ordinary intelligence would mistake varicocele (enlargement of the spermatic veins) for it. Neither would they be likely to mistake hernia, or hydrocele for it.

There is, however, one affection which may possibly be considered orchitis—that is, tubercular sarcocele. By enumerating the more prominent symptoms of tubercular enlargement of the testicles, you will at once recognize the difference between it and orchitis. In tubercular sarcocele the enlargement of the testicle is very rapid, so that its increase can be easily noticed from day to day, at the same time it is perfectly painless and so remains throughout. The organ even lacks a normal tenderness on pressure. It can be handled or squeezed firmly between the fingers without producing the slightest pain. In fact, it has none of the symptoms of inflammation except swelling. It is neither red, hot, nor painful, while orchitis has all the symptoms of acute inflammation.

We now come to look at the *treatment of orchitis*. If injections have been used to check the urethral discharge, they should, at once, be suspended, and

their use not resumed until the testicle is entirely well. Then such general measures must be adopted as would tend to subdue inflammation. In nearly all authorities you will see it urged that the patient keep perfectly quiet, in the recumbent posture, etc., but let me say to you here, that to urge this upon your patients is worse than useless. Most men are unwilling to keep their beds for this trouble, unless the pain is so severe that they are compelled to. They are totally unwilling to neglect their business for a "swelled testicle."

Again, they are generally desirous of keeping their disease secret, and going to bed for a week would certainly give rise to numerous questions, which would test their wits to too great an extent to answer.

So, while, if patients would heed your advice and be quiet, it would be of the very greatest benefit, yet they will not, and it is, therefore, needless to waste time in urging it, but we must look to the very best means of treating, besides quietude and recumbency.

First and foremost, then, stands electricity. Nearly every case of orchitis can be quickly cured by the proper and skillful application of electricity directly to the affected testicle. When I say electricity, I do not mean that you can take any kind of an electric or magnetic machine that you will find in shops, and apply in any sort of way, and cure. You must either do it prop-

erly or let it alone. You should have an electrode cup, made for the purpose, filled with warm water, and connected with one pole of a galvanic battery, the circuit being completed by a broad sponge electrode, connected with the other pole, and placed over the pubis, above the hair of that region. A very mild current should be applied for five minutes each day. When applied in this manner, three or four days is, generally, sufficient to relieve all ordinary cases of orchitis.

The organ should be relieved of its weight by wearing a suspensory bandage, buckled around the waist, just tight enough to support the testicle. This is the first step in any plan of treatment.

The constipation should be relieved and the bowels kept gently active during the entire treatment. A good remedy for constipation accompanying orchitis is the following:

Sulphate of Magnesia, or Soda, ℥ iv.
Tart: Antimony and Potassium, gr. ij.
Distilled Water ℥ viij.
M.
Sig. Take one tablespoonful every hour until bowels move freely.

The tartar emetic relaxes the system, and thus enables the salts to act more vigorously, and at the same time exercises a salutary influence by its antiphlogistic properties.

LECTURE VIII.

COMPLICATIONS OF GONORRHŒA—Continued.

Next in importance to electricity comes the free use of the lancet. When the testicle is so violently inflamed, the tension becomes very great on account of effusion, which always takes place in the sack of the tunica vaginalis. The pressure on the testicle becomes very great, and productive of much pain.

Just at this stage, Velpeau recommends most highly the following simple operation: "The scrotum is grasped firmly with the left hand, and so held as to push its contents forward. Then, with an ordinary thumb lancet, held between the forefinger and thumb of the right hand, make several punctures in quick succession into the sac, holding the scrotum tense until the fluid has escaped.

"If much fluid is present it will shoot quickly and forciby out as each puncture is made. In other cases only a small quantity of bloody serum will escape. But in either case great relief is experienced at once, the pressure having been taken away."

It is sometimes necessary to place the patient partially under the influence of ether, but the oper-

ation is easier performed with him in the standing posture; therefore, as it is simple and attended with little pain, it is best to persuade the patient to stand up and endure it rather than be anesthetized.

This operation of Velpeau, and the application of electricity, accomplish the same thing exactly; one lets out the fluid, the other causes its rapid absorption. Next, we find leeching of great benefit. If there exists a violent inflammation, and for any reason galvanism or the lancet cannot be used, the application of from six to ten leeches over the inflamed organ will often produce great relief. After they have come away the patient should sit in a tub of water, as warm as he can bear, for from fifteen minutes to half an hour. He should then be placed in bed and remain quiet for three or four days, using emollient applications in the mean time. Among other and less important remedies which have been used with benefit, and all of which have their places, may be mentioned,

Ice. This substance is applied by means of an india-rubber bag made for the purpose. This bag is loosely filled with pieces of ice the size of a guinea or hen's egg, the mouth of it secured, and placed so as to allow the inflamed parts to rest continuously on it. The ice may be renewed when necessary. If the rubber bag cannot be had, an excellent substitute is a hog's bladder, softened by soaking in water before using. If two bags or bladders are used, one should be placed underneath

the testicles and the other above. The thighs and abdomen should be protected from cold by placing cloths between them and the ice-bags. Cold applications suit best in the early part of the attack. If they do not afford relief in the course of two or three hours their use should be discontinued.

Poultices. Warm applications are always beneficial after leeching, and sometimes give relief in the earlier part of the attack.

Poultices may be made of almost anything, so we combine heat and moisture. Flax-seed, slippery elm, tobacco, corn meal, wheat bran, peach-tree leaves, etc, sprinkled with laudanum, are all used.

Belladonna, tansy, hyosciamus, stramonium, hops, chamomile flowers and digitalis leaves are also applied with benefit.

Enclose the poultice in a piece of thin muslin, apply it, and then place oiled silk on the outside. The poultice should be large enough to surround the whole testicle, and should be renewed every two hours at least.

Strapping the Testicle. This procedure is only applicable after the acute symptoms have abated, and the inflammation to a great extent subsided. Its object is to speedily reduce the swelling.

It is done in the following manner: The hair should be thoroughly removed from the scrotum with a razor. Strong adhesive plaster is then cut into strips from three-quarters to an inch in width.

The testicle is now pressed down to the bottom of the scrotum and there held by the thumb and fore-finger of the left hand, and a strip of plaster placed around the affected side, just below the external abdominal ring. Then one strip after another is applied, so that each one overlaps one-third of the one above until the bottom of the scrotum is reached. This is covered by longitudinal strips, and finally all is secured by a long strip carried spirally around the tumor. In about twenty-four hours you will find the swelling diminished, and the strips very much loosened, when they should be removed, and fresh ones applied as before. This should be continued until the swelling is well nigh gone, and the organ supported by a suspensory bandage, during the time and for awhile afterwards. There is a bandage now made which is intended to take the place of strapping, known as Milano's compressive suspensorium.

It is a long net-bag with a number of ribbons placed through it, which act like gathering strings. It is buckled around the waist similar to the ordinary suspensory bandage, allowing the inflamed organ to rest in the net work. The upper ribbon is then tightened and tied so as to prevent the testicles from pushing up against the abdominal ring. The lower one is tied and the next above and so on until it exercises a firm pressure on the organ. As it becomes loosened from day to day, another

ribbon is tied, and thereby a steady pressure kept up until all is well.

This is an excellent contrivance, where compression is desired, and is much more convenient than strapping.

There has been, at different times, many different remedies recommended, in addition to the ones already mentioned. I shall enumerate them briefly, at the same time would remark, that I have but little faith in their efficacy.

The application of antimony, mixed with simple cerate, was recommended by M. Michel, in 1865.

Solutions of nitrate of silver, consisting of two drachms to the ounce of water, locally applied.

Collodion and ether, applied, have also been tried, and found wanting.

Ointments, made of simple cerate, combined with either aconite, belladonna, strammonium, conium, iodiform, can be used with benefit in allaying the pain. I deem it unnecessary to proceed further, since any case of orchitis or epididymitis can be speedily relieved by the treatment first mentioned.

In some cases, especially those not properly treated at first, the testicle or epididymis remains slightly enlarged and indurated after all symptoms of inflammation have disappeared.

In such cases you will find nothing better than the application of the galvanic current once a day.

Next to this, the application, twice a day, of murcurial ointment or iodide of lead ointment, in

the proportion of one or two scruples to the ounce, of simple cerate.

Next in order, we come to study inflammation of the prostate gland, known, technically, as *prostatitis*.

At a glance, you will recognize that we must meet in practice, with two forms of prostatitis, namely: the acute and chronic. Gonorrhœal acute prostatitis is the extension of the inflammation along the urethra to its prostatic portion, and thence into the ducts of the gland itself.

While this disease may be produced by a variety of other causes, such as the unskillful use of sounds or the catheter, caustic injections to the deeper parts of the urethra, stricture of the urethra, a fragment of stone imbeded in the prostatic portion of the urethra, excessive horseback exercise, or injury, of any kind, in that region, excessive sexual indulgence, alcoholic stimulants, exposure, etc., yet, we are now to consider it when caused by gonorrhœa.

It is but proper, however, to remark that from whatever cause it arises, the symptoms and treatment are essentially the same.

The earliest symptoms of acute prostatitis are a sensation of weight in the perineum near the anus. As the inflammation advances and the swelling increases, this heavy feeling becomes more and more unpleasant, until it amounts to actual soreness. The patient is frequently called upon to go to stool,

and after much tenesmus, finds he cannot empty the rectum satisfactorily. There is a feeling as though something was present which could not be discharged, very much the same sensation as that produced by piles. This is due to the fact that the gland is so swollen that it presses upon the rectum, and keeps up, thereby, the desire to defecate. When the bowels are actually moved, unless the fœcal matter has been made very soft by the use of purgatives, the act is attended with considerable pain. This is due to the pressure, that hard matter must necessarily make in passing over the swollen and tender prostate.

The gland, lying as you know, between the rectum and neck of the bladder, also presses against the latter, making micturition more or less difficult.

There is not that severe burning upon urinating, nor the vesical tenesmus that we have in cystitis, but there is frequent desire to void urine, and on account of mechanical obstruction, interposed by the enlarged gland, it is only with difficulty that it is discharged, and then the bladder is never perfectly emptied. The greatest pain is felt just as the last few drops of urine are voided. By inserting the finger into the rectum you can easily feel the enlarged gland, and by pressing slightly upon it, the patient will complain of pain.

If you introduce a bpurgie or catheter into the urethra it will be obstructed at the prostate, and much pain complained of in that locality.

This inflammation, if very violent, and not timely treated, sometimes advances to suppuration, producing abscess of the prostate. In such cases it becomes an exceedingly painful affection, often confining the patient to his bed for weeks; sometimes, though rarely, causing death. The usual course of prostatitis is to first gradually inflame, producing the symptoms before mentioned, then the inflammation slowly subsides, and the gland resumes its normal size.

From whatever cause the prostate may become inflamed, you can easily comprehend all the symptoms by being thoroughly acquainted with the anatomy of the parts. The neck of the bladder (prostatic urethra) being imbedded in the upper portion of the gland, and its broad posterior and inferior surface resting on the rectum, you can easily understand that a swelling or enlargement of the organ would press upon the neck of the bladder above, and against the upper wall of the rectum below. An increased flow of blood to the gland would necessarily somewhat congest and irritate the neck of the bladder.

The *prognosis* of acute prostatitis is in some respects favorable, in others somewhat discouraging.

The acute inflammation subsides without much difficulty, and all pain and soreness disappears, but it often relapses into a chronic form which may remain for years, while in very many cases, under

proper management, recovery is rapid and complete.

In the *treatment* of this affection, as in inflammation of the testicle, first and foremost again is electricity.

A metallic electrode, made for the purpose, and attached to the negative pole of the battery, is applied by the rectum against the prostate; a broad sponge, attached to the positive pole, is placed upon the abdomen, and a mild galvanic current applied for five minutes. This treatment may be repeated once daily until the cure is complete.

Internally, the following is very beneficial:

Tart. Antimony and Potassium,
Sulphate Morphiæ, *aa* gr. iij,
Distilled Water, ℥ viij.
M.
One teaspoonful every three hours.

After taking the first few doses there may be nausea, and, perhaps, vomiting, but this does not last. After the first day there is no unpleasantness connected with its administration, save, perhaps, a slight headache.

Hot hip baths, leeches, poultices, mustard plasters, stimulating liniments and blisters, have all been applied to the perineum over the region of the gland with benefit. I have very often prevented a threatening attack by applying a small mustard plaster the size of a silver dollar for half an hour.

Injections of warm teas, such as flax-seed, slippery elm, hops, etc., into the rectum, are very grateful. The use of suppositories of belladonna and opium are also of great benefit in controlling the frequent desire to urinate.

R.
Ext. Belladonna, gr. ij.
Ext. Opii, gr. ss.
Coca Butter, q. s.
M. Make four suppositories.
Use one every night at bed-time.

Under proper treatment, acute inflammation of the prostate often gets well in from one to four weeks, but sometimes merges into a chronic state.

LECTURE IX.

CHRONIC PROSTATITIS.

While in the majority of instances this disease is the result of a previous acute attack, it may be brought on by exposure, frequent horseback exercise, excessive venery, masturbation, etc., without any acute inflammation previously existing.

Among the symptoms of chronic inflammation of the prostate gland, the most prominent is the discharge of a thin, watery, slightly viscid fluid from the urethra. This discharge may be constant, or, as in the majority of cases, it may be perceptible only in the morning. On rising, the patient notices a small bead or drop of matter lodged in the mouth of the urethra, which is washed out by the urine, and no more secretion is noticed until the next morning. Again the discharge is scarcely perceptible, except during defecation, when by the pressure of fœcal matter against the gland a small quantity of milky fluid is forced from the urethra. There is often a sense of weight in the loins, and the thighs ache more than is normal after slight exercise.

In cases of long standing there remains, after

micturition, a few drops of urine, which escape involuntarily a few minutes later.

This disease has a powerful effect upon the nervous system. The patient becomes despondent, irritable, moody, imagines that he is the victim of some terrible and incurable disease, that he is impotent, that his erections are not perfect, and that he is affected with first one disease and then another. He broods continuously over his malady, trying to cipher out what it is, loses interest in business and friends, becomes tired of life and sometimes contemplates suicide. This effect upon the nervous system is, to some extent, due to a wrong impression heretofore made upon the public mind by physicians. Patients affected similarly have been taught to believe that this condition is spermatorrhœa, that the discharge is pure semen, and this impression, which has become familiar to the public mind, is the cause of the great depression of spirits that so often occurs.

The discharge is not semen, as can be easily demonstrated, by the microscope, from the absence of spermatozoa. While these are the symptoms of a typical case, yet they are subject to the following variations: The discharge may be very free and of sufficient color to stain the linen; it may be thin, watery and scant; it may be very thick and yellow. Often the only sign of it at all is that the glans penis is kept constantly moist, especially in persons with a long foreskin. Again the discharge is the

only symptom, no effect being made upon the nervous system.

In the treatment of this affection you will find it necessary to "administer to a mind diseased," as well as a body. Apart from the hypochondria produced, it is not a serious trouble, and will get well of its own accord, usually, in two years without any damage to the patient. The first step necessary, then, is to plainly and carefully explain to the patient the nature of his disease, impress firmly upon him the fact that he is not suffering from spermatorrhœa, but prostatorrhœa. Let him understand that you are both his friend and his physician, assuring him that he will come out all right in the end. If you succeed in gaining his confidence, you at once have lifted a great cloud from his mind, which, perhaps, has darkened his life for months. He should, then, be urged to regard the ordinary laws of health, take plenty of open-air exercise, eat heartily of good nutritious food, such as milk, eggs, fish, beef, chicken, turkey, game, oat meal and rye bread. He should have his mind employed so as to divert it from his disease.

He should be advised to indulge in sexual intercourse to a moderate extent, say once each week.

The very best internal remedy is some powerful nerve tonic. None better than the following:

℞
Sulphate of Strychnia, gr. ij.
Dilute Phosphoric Acid, ℥i.
M

Sig. Take eight drops three times a day, and increase to fifteen after the first week. After meals.

Tincture of chloride of iron, in combination with the strychnine and acid, is beneficial in cases where the blood is much impoverished; camphor, ergot, and tincture of cantharides are all of benefit, also in small doses. Painting the perineum over prostate with tincture of iodine, once a day, is of great benefit, also the injection of a weak solution of nitrate of silver into the prostatic urethra, by means of the deep urethral syringe, will be found very useful in obstinate cases. The strength of the solution should never exceed ten grains to the ounce of water, and only a few drops injected, not oftener than twice a week. The very heroic plan of using one drachm to the ounce, I am satisfied can be productive of no good, and in the majority of instances does harm.

The bowels should be kept open by the use of saline cathartics, or some proper vegetable pill. Once a day is sufficient for them to move.

This form of prostatic disease is often due to a contracted meatus urinarius, which in such cases should be slit and kept apart until healed, as recommended by Dr. Otis. It may also be due to organic stricture in the membranous or prostatic

urethra. In such cases, of course, the stricture must be relieved before hoping to cure the disease. We find electricity of great value, also, in its treatment.

Cystitis.—We now come to conclude the complications of gonorrhœa by the consideration of cystitis, or inflammation of the bladder. It is proper here to state, that this inflammation is confined principally to the neck of the bladder, not frequently affecting its entire lining.

It is generally caused by the simple extension of the inflammation into the bladder, but has been supposed to be produced, in some instances, by the gonorrhœal matter being forced back into the bladder by injections, and setting up at once an inflammation similar to that in the urethra.

I very seriously doubt if such ever occurs; yet it is claimed by high authority.

The more marked symptoms of cystitis are a very frequent desire to urinate, great vesical tenesmus, or, as it is called by patients, "*straining*," which is due to spasm of the neck of the bladder. The patient suffers with a burning pain immediately after urinating, which is accompanied by a strong desire to urinate again. In fact, in severe cases he is never free from the desire to pass water, and the irritation is so great that the patient cannot control himself, but is often compelled to hurriedly leave company, without time for explanation, in order to prevent the discharge of urine in his clothes.

There is rarely any febrile excitement in cystitis, such as we often have in acute prostatitis. In order to fully differentiate between acute prostatitis and cystitis, we will now mention the symptoms of each.

Cystitis of the neck of the bladder: Characteristic, vesical tenesmus; frequent and imperative desire to urinate.

Micturition especially painful with the passage of the last few drops of urine, when there is a characteristic convulsive contraction.

Toward the close of micturition excretion of a thick fluid—a mixture of blood and pus—often also pure blood.

Mere perineal sensibility; pains radiating towards the anus, much less violent than in prostatitis.

Prostate normal.

No retention of urine.

Fever no general symptoms.

Acute Prostatitis: Vesical tenesmus much less and characteristic spasm of the neck of the bladder.

Micturition frequent but not so painful; no discharge of blood, and but little matter.

Considerable pain radiating from prostate toward the anus, especially during defacation.

The prostate decidedly swollen, causing a fullness in rectum, and producing rectal tenesmus; can be easily felt through rectum, and painful to touch.

In the *treatment* of cystitis, you will find benefit from internal as well as local remedies. Anything that increases the watery portion of the urine, thereby lessening the proportion of the salts, will relieve. Copaiva and cubebs are of benefit by virtue of this action, and should be given in connection with gum arabic and syrup. If they are found to disturb the stomach, producing nausea and loss of appetite, they should be discontinued. The following mixture is very useful:

Oil of Sandal, ℥ i.
Sweet Spirits of Nitre, ℥ i.
Mucilage of Gum Arabic, ℥ ss.
Syr. Simplex, ℥ i.
Spts. Lavender, ℥ ss.
M.

Take one teaspoonful three times daily one hour after meals.

It should be shaken thoroughly each time before taking, and, if borne well, the dose may be increased to two teaspoonfuls, after one week.

I have in my mind now a gentleman who had suffered from gonorrhœal cystitis for about three months, and after using a great number of remedies, found his first decided relief in the use of this prescription. The great objection to the use of the balsams and oils, is, that they are not well borne by the stomach. I believe sandal oil to be as efficient as any remedy in the entire list, for internal use, where the stomach does not revolt. Diuretics in general are of service; for example, digitalis, ju-

niper berries, broom in the form of tincture or infusion.

I have seen direct benefit from the administration of—

Bicarb. Totas., ℥ss.
Sulphate Morphiæ, gr. iss.
M. Make ten powders.
Sig. Take one in full glass of water just before each meal.

Where there is great vesical tenesmus and pain upon micturition, the amount of morphia may be increased according to necessity.

Locally, counter irritation to perineum, in the form of mustard plasters or stimulating liniments, may be used. Injections of cold water into the rectum, or ice in the same way. If ice be used, it is best to have oil silk or bladder to wrap small lumps in, so as to prevent injury to the walls of the rectum by the edges of the pieces. What is still better, is an ordinary condom filled with small pieces and inserted. Injections of ice-water into the rectum answer the same purpose, but not so well.

Drawing blood from the perineum by the application of five or six leeches, encouraging the flow afterwards by a warm water sitz-bath; belladonna or hyociamus ointments, to the perineum, hot water, poultices of various kinds, are all beneficial as local applications. All urethral injections should be stopped at once.

LECTURE X.

TREATMENT OF GONORRHŒA.

In treating gonorrhœa, great judgement and common-sense must be exercised, and remedies applied according to the peculiarities of each case. It is a recognized fact that it is one of, if not the most difficult of all diseases to treat with satisfaction. In many instances it will improve rapidly under a very simple treatment, and in others you may exhaust the list, and nothing seems to change its course. I would, therefore, caution you against the promises, which young practitioners are so prone to make, after treating two or three cases of gonorrhœa successfully.

I regret to say that the profession, as yet, knows of no specific for this disease, of no remedy that can be relied upon to benefit every case. So, having our list of remedies before our minds, we must, with prudence and wisdom, select what we deem best for each case, according to its own peculiar nature.

Whenever you meet with one of the wiseacres, whether physician or layman, who tells you that he knows of a remedy that will cure any case in *three* days, you mark it down that he doesn't know what

he is talking about. The larger your experience in treating this disease, the less will be your confidence in your ability to relieve it.

The treatment consists of two varieties, *internal* and *local*, and some cases require one, some the other, some both.

Anything that has a tendency to dilute the urine largely, and lessen its acidity, has an indirect beneficial influence. Then, for example, copaiva, cubebs, oil of sandal, oil of erigeron, turpentine, kava kava, sweet spirits of nitre, digitalis, juniper, watermelon seed tea, broom, bi-carbonate of potassium, magnesium, sodium, or nitrate of potassium, may be used for the purpose of rendering the urine less irritating to the inflamed urethral membrane. The following prescriptions contain some of these medicines, from which you can select, or if, in your judgment, you think you can make a better one for any particular case, it would be very proper to do so. Where remedies do not have a specific influence over some special disease or diseases, I do not desire you to copy prescriptions. I would prefer you to understand the pathology of the disease; then, being acquainted with materia medica and therapeutics, apply the remedies to suit each case separately. Of course there are broad principles to be laid down, which govern the treatment of every case. In managing a case of uncomplicated gonorrhœa, inasmuch as you have a

highly inflamed mucous surface, which is constantly discharging a purulent matter, and over which is often flowing an irritating fluid, the following general rules should be adopted: Render the urine as little irritating as possible, by proper diet as well as medication—heal the inflamed membrane as rapidly as practicable, by quietude as well as local applications; continue treatment, especially local, some days after all symptoms of disease have disappeared.

LECTURE XI.

TREATMENT OF GONORRHŒA—Continued.

℞.
Balsam Copaiva, ℥ i.
Spts. Lavender, ℥ i.
Spts. Nitre (sweet), ℥ i.
Mucilage Gum Acaciæ, ℥ ss.
Syr. Simplex, ℥ ss.
Ol. Cinnamon, gtts. xv.
Mix.
Shake well. Take one teaspoonful 3 times daily, 1 to 2 hours of eating.

℞.
Ol. Sandal, ℥ ss. to ℥ i.
Spts. Nitre (sweet), ℥ i.
Mucilage Gum Acaciæ, ℥ ss.
Syr. Simplex, ℥ iss.
Ol. Cinn. or Pip., gtts. xv.
Mix.
Take one teaspoonful 3 times a day after eating. Shake well.

℞.
Ol. Erigeron, ℥ i.
Take 20 to 30 drops on sugar after each meal.

℞.
Ol. Cubebs,
Balsam Copaiva, *aa* ℥ i.
Spts. Nitre (sweet), ℥ i.
Spts. Lavender, ℥ i.
Ol. Cinnamon or Peppermint, gtts. xv.
Mix.
One teaspoonful 3 times daily, after meals. Shake well.

℞.
Fluid Extract of Kava Kava, ℥ ij.
Take 40 to 60 drops in full glass of water 3 times daily, before meals.

Oil of turpentine may be taken alone or in combination with other remedies in emulsion, in from ten to twenty drop doses, three times daily, after meals.

Infusions of digitalis, juniper berries, and broom, alone or together, are used with fine effect.

℞.
Bi-carbonate of Potassium, ℥ ss.
Morphiæ Sulphas, gr. ij.
Mix, and make 12 Powders.
Take one powder in full glass of water
10 minutes before meals.

The same may be taken in watermelon seed tea, instead of plain water, with better effect.

℞.
Tartar Emetic, gr. vi.
Sulphate of Morphia, gr. vi.
Aqua Dest., ℥ vi.
Mix.
Take one teaspoonful every four hours.

This prescription was used largely by my distinguished friend and former colleague, Dr. E. M. Wight, of Chattanooga, with very great satisfaction, and I am indebted to him for the suggestion. He says (using his own language): "For the first day or two, it will cause nausea, and perhaps vomiting, once or twice; but afterwards it is borne well, and the patient takes it as easy as any ordinary medicine.

"Its first effect upon the disease is to relieve the

painful micturition, and abundantly increase the discharge, seeming to produce a diarrhœa of the urethra, but after four or five days of this free discharge, the running stops all at once, and remains stopped. I seldom find injections necessary while pursuing this course."

This plan was adopted and very successfully carried out by him, and is now used by his esteemed brother, Dr. Charles E. Wight, of Chattanooga, (my former student), with equally good results.

I have used it frequently in cases where the inflammation ran high, with much satisfaction; the leading objection being that patients, in this age, dislike to be made sick at the stomach, and are consequently, in a great many instances, unwilling to take it. Whenever I prescribe it my memory wanders back to the many pleasant hours spent with one who was my friend indeed and in truth, and with whom I labored side by side to build up our present Medical Department of the University of Tennessee. Ever zealous in the acquirement of knowledge, always courteous, always ready to help the young practitioner in his early trials to attain professional eminence, the friend of the poor, he was beloved by all. His body now sleeps in the quiet grave, while his energetic spirit has taken its place in that ever-progressive eternity.

℞. Tarrant's Ext. Copaivæ et Cubebs, ʒ ij.
Make thirty pills.
Take two pills two hours after each meal.

This preparation being in form of a paste need not be accurately measured, but the patient may be directed to cut out a piece with his knife and roll up so as to make a pill the size of the end of the little finger, and take every three or four hours.

There are many other formulæ which might be mentioned, but I deem it unnecessary.

I do not believe in the specific action of any known internal remedy. I am satisfied that the manner in which they benefit, is by removing the irritation caused by a urine strong with acid and salts, and nature performs the cure.

For example, you have an inflamed and abraded surface, over which every hour or two you pour strong vinegar filled with common salt—the tendency is to keep the surface inflamed for a long time, perhaps for months. Now then, mix large quantities of clear water with this small quantity of vinegar and salt, and the more you dilute the less irritating it becomes, and consequently gives the surface a chance to heal.

The *local* treatment of gonorrhœa consists of external applications and urethral injections. Among external applications may be mentioned pencilling the under surface of the penis along the track of the urethra with solid nitrate of silver.

The remedy is very severe, for four or five days, causing swelling and considerable pain, but is very efficacious. It is, however, usually worse than the disease; that is, patients prefer being treated

three or four weeks on a milder plan, to getting well in one, with such painful and heroic treatment. Painting the under surface of the penis with tincture of iodine is recommeded by some. I do not advise its use, as it does little good.

Blistering the under surface of the penis along the course of the urethra is very decidedly beneficial, but is even more painful than nitrate of silver, since the cantharides are more or less absorbed, and produce thereby considerable vesical tenesmus.

Frequent immersing of the penis in either very hot or very cold water is absolutely necessary, as a means of cleanliness, and is beneficial in contracting the blood vessels of the parts. The only successful way to bathe the penis is to have a cup, glass, or other similar vessel, nearly filled with water, and then allow the organ to hang down in it, having it completely submerged. It should remain for from fifteen to twenty minutes each time.

It is best not to wrap the penis very tightly with a linen secured by a string, as this will likely interrupt a free circulation and aggravate the trouble. The best dressing is a linen bag or pouch, made for the purpose, with two strong tapes attached, which are tied around the waist, and the penis simply hangs in the pouch. Or if this is not convenient, a very common substitute is made by cutting off the foot of a small sock, and securing it around the body in like manner. If the discharge is very free,

a small piece of cotton may be placed in the bottom of the pouch.

The use of injections is by far the most common and appropriate local treatment. The list of substances used as urethral injections are even more numerous than those for internal administration. Every druggist you meet has one or two sure cures of this type. He tells the patient that he can cure him in three days, or one week at farthest. Then, if that fails, and the troubled fellow disgusted with the first experience, drops into another shop, he is told that this store keeps an injection so valuable that no one is allowed to know what its ingredients are, save the few who must compound it. "It has been tried time and time again, in cases on whom all the leading physicians have failed, and has promptly *cured* every one of them." These are about the words generally used. So the poor fellow, with his hopes again raised, invests another dollar, with the same result as before.

Nine men out of every ten, you meet, have a prescription in their little memorandum-books, which a physician or some friend gave them, and it cures them every time, in three or four days, therefore, it will cure everybody else.

Nothing in the world, gentleman, is so numerous as injections for gonorrhœa, and the very fact of their variety is positive proof of the uncertainty of their action.

If there was any thing that was a specific, then

every physician would prescribe it, every patient would have it. If a man has chills and fever, what remedy is prescribed at once?—Quinine. It is echoed by every scientific physician from the north to the south, from the east to the west, all, with one accord, agreeing that quinine will cure chills and fever. Now, if their was any one remedy that would as surely relieve gonorrhœa as quinine does ague and fever, there would exist the same harmony. But is it so?

While there are some few old and very good injections that are usually prescribed, yet you can go to twenty different physicians with a case of gonorrhœa, and you will have at least eighteen different prescriptions. I would be glad if I could tell you now exactly what injection to use, and guarantee to you its specific action, but I cannot. I will, therefore, lay down some general rules in regard to their use, and then mention a few of the more efficient ones. In the first place, you should never use injections of any description while the inflammation runs very high, if so, you will aggravate it.

If a patient presents himself with gonorrhœa of a severe type, the lips of the meatus red, swollen, and pouting, an abundant yellowish, or yellowish-green discharge, great tenderness along the course of the urethra, with frequent desire to urinate, and great pain attendant upon micturition, then, by no means use an injection. Use internal remedies and either

very hot or very cold applications until the acute symptoms have subsided; afterwards a wisely selected injection will hasten recovery very materially. Injections often fail for want of a proper syringe, with which to use them. My experience is that the small glass syringes, generally used, do not do their work properly. I have three leading objections to their use:

1. Their nozzles are rough and wound the urethra.

2. They have not the power to throw the fluid back as far as is often desirable.

3. Their pistons are in nearly every instance wrapped so unevenly that they work either too easy or too hard. When too easy, part of the fluid remains unexpelled, when too hard they greatly endanger the walls of the urethra, by slipping and breaking. The best syringe is the small hard rubber or celluloid, made especially for the purpose, with rather a long nozzle, rounded at the end. They work easily, yet powerfully, do not break, and do not leak.

When wishing to use an urethral injection, the patient should urinate first, then raise his penis up until the glans is within one and one-half inches of the abdomen, about the same position as when the organ is erect. The syringe being previously filled, should now be carefully inserted until the

nozzle is well concealed, then pressing the sides of the meatus closely together underneath it, the piston should be forced gently and rapidly down. The fluid should be held in the urethra from one-half to three minutes, and then allowed to discharge itself.

LECTURE XII.

TREATMENT OF GONORRHŒA—Continued.

In selecting an injection you may be guided by this principle, viz.: combine an astringent, a disinfectant and a local anodyne. An astringent to contract the blood-vessels and stimulate the membrane to healthy action, a disinfectant to destroy as much as possible the irritant properties of the matter secreted and lying against the already inflamed urethral lining, a local anodyne to allay irritation and quiet pain. Injections should always be discontinued upon the appearance of acute cystistis, orchitis, or acute prostatitis.

I will now lay before your minds some recipes, used as injections in gonorrhœa:

R	R
Sulphate of Zinc, gr. xv.	Sulphate of Zinc, gr. xij.
Acid Carbolic, gr. xx.	Calamine, ʒss.
Morphiæ Sulphatis, gr. xij.	Aqua Rosæ, or Destil, ʒviij
Aqua Rosæ, ℥viij.	Morphiæ Sulph. gr. x.
Mix.	Mix.
Use three or four times daily.	Use three or four times daily.

This injection should be well shaken before using, as the calamine is insoluble in water, and will settle to the bottom.

℞.
Sulphate of Zinci, gr. xv.
Morphiæ Sulph., gr. xiij.
Aqua Rosæ, or Dest., ℥viij.
Mix.
Use four times daily.

℞
Sulphate of Zinc, gr. xij.
Sugar of Lead, gr. vi.
Morphiæ Sulph., gr. viij.
Aqua Rosæ, or Dest., ℥viij.
Mix.
Use three or four times daily.

℞.
Sulphate of Zinc, gr. xij.
Pulv. Alum, gr. x.
Morph. Sulphatis, gr. x.
Aqua Rosæ, or Dest., ℥viij.
Mix.
Use three or four times daily.

℞.
Pulv. Tannin, gr. xv.
Sherry Wine, ℥vi.
Mix.
Use two or three times daily.

This formula is applicable alone to chronic cases, where all acute symptoms have subsided.

℞
Permanganate of Potassium, gr. iij.
Aqua Dest., ℥vi.
Mix.
Use four or five times daily.

It is still better to have several powders of permanganate of potassium, of one half grain each, and dissolve one in an ounce of rain or distilled water every morning. There is no injection better than this.

℞.
Zinci Acetatis, gr. x.
Aqua Dest., ℥ iv.
Mix.
Three times daily.

℞.
Sulphate of Copper, gr. xij.
Aqua Dest. or Rosæ, ℥ viij.
Mix.
Use three or four times daily.

℞.
Chloride of Zinc, gr. ii.
Aqua Dest. ℥ iv.
Mix.
Use 3 or 4 times daily.

℞.
Persulphate of Iron, gtts. xl.
Aqua Dest. ℥ iv.
Mix.

A very good remedy for the third stage.

℞.
Hydrastis Canadensis, Fluid Ext., ℥ ss.
Aqua Rosa or Dest., ℥ iv.
Mix.
Use three or four times daily.

The following is a secret prescription put up by a druggist of this city, and sells at one dollar per bottle.

℞.
Sulphate of Quiniæ, ℥ ss.
Sulphuric Acid, gtts. xv.
Aqua Rosæ, ℥ viij.
Mix.
Use every two or three hours.

He calls it the white injection, and proclaims it a sure cure. Quinine has been used for some years as an injection for gonorrhœa, therefore is not a new remedy. It is an excellent application in the beginning of an attack, having, as it does,

a cooling and non-irritating influence. The acid is added simply to dissolve the quinine.

℞.
Nitrate of silver, gr. iv.
Aqua Dest., ℥ iv.
Mix.
Use three or four times daily.

Professor E. L. Keyes, of New York, recommends the use of permanganate of zinc, as especially advantageous in the latter stages of the disease.

℞.
Permanganate of Zinc, gr. iij.
Aqua Dest. ℥ vi.
Mix.

I might go on for hours, mentioning many others of a similar nature, but that is unnecessary. You have your materia medica to select from. Nearly every astringent and disinfectant, both vegetable and mineral, have been used with advantage. Sulpho-carbolate of zinc or sodium, tincture of iodine largely diluted, various preparations of iron, copper, lead, cadmium, etc., krameria, kino and catechu, are brought into play in the treatment of gonorrhœa. My decided preference is for the salts of zinc, especially the sulphate, combined with the impure carbonate (calamine). After the discharge has ceased, the injection should still be used, at least twice a day for two weeks..

Before leaving this subject, it is best to say something in regard to diet and quietude. It is not proper for patients to go through the old starving process, denying themselves meat, butter, coffee, tea, milk, tobacco, etc. There is nothing that is so sure to protract a case of gonorrœa as a very limited regimen. The patient should not partake of any very salty food, such as ham, bacon, herring, mackerel, codfish, and the like, but should eat as much as he desires of lean mutton or roast beef, rice, hominy, chicken, turkey, game, fresh fish, sweet milk, soft boiled eggs, breads of any kind, oatmeal and cracked wheat. If he is accustomed to tea or coffee, a sudden stoppage does more harm than good. He should absolutely abstain from all intoxicating liquors, such as ale, beer, whisky, wine, gin, etc. If the patient be an old drinker, who has taken his whisky the same as his meals for many years, then it is best not to withdraw the stimulus entirely, as his nervous system may give way and seriously injure him. It is better to be longer in relieving him of the disease than to produce a more dangerous one by their sudden withdrawal.

All authorities, with one accord, insist upon quietude in the recumbent posture as the first step necessary to the successful management of a case of gonorrhœa. Now, while this would be of the greatest value, yet men of the present day would not think of lying down, or even remaining

away from business for an uncomplicated case; so there is no use urging it.

It is simply impossible (with a few exceptions) to get a person to remain quiet for this disease, unless the pain is so great that he is compelled to. He wants to be cured without going to bed or remaining in his room, and if you make that a prerequisite to the treatment, you will have very few patients. Physicians had as well stop talking about quietude for gonorrhœa, and set about trying to discover something that will cure it without the patient being still.

Gleet.—Chronic gonorrhœa or *gleet*, per se, so far as I have observed, is of very rare occurrence. While I am satisfied that in some few case, where the general condition of the system is bad, that the disease may sometimes assume a chronic form, yet I am thoroughly convinced, from a very careful observation of numbers of cases, that ninety-nine per cent. of the cases of gleet we meet, are due to urethral stricture. In many cases the stricture is so slight as not to apparently interfere with micturition, yet it is sufficient to keep up an irritation which causes a more or less constant discharge of thin, watery or milky fluid, and which, generally, becomes aggravated upon exposure, over-work, excessive venery, or excessive use of alcoholic stimulants.

The treatment of gleet, when it exists independent of stricture, is to sustain the patient and

build him by general tonics, such as iron, quinine, nux vomica, strychnine, hypophosphites, phosphoric acid, etc.

Also the use of stimulating remedies to the genito-urinary membrane, either constitutionally or locally.

The following formula is used in gleet, with success, where it is uncomplicated:

℞.
Sulphate of Strychniæ, gr. ij.
Dilute Phosphoric Acid, ℥i.
Mur. Tinct. of Iron, ℥i.
Mix.

Take 20 drops in water three times daily, after eating.

In cases where there is great loss of tonicity in the urethral membrane, cantharides or turpentine may be used with great advantage. Many men carry a piece of resin turpentine in their pockets, and eat a small piece three or four times a day.

℞.
Tr. Cantharidis, ℥ss.
Aqua Dest., ℥vss.
M.

Take 10 to 15 drops three times daily.

This is a favorite remedy with homeœpathists, and does much towards affecting a cure. Local applications, in the form of deep urethral injections, are decidedly the most preferable treatment, and

more satisfactory results may be expected than from any other plan.

Weak solutions of nitrate of silver, thrown in by means of a syringe with a nozzle five or six inches long and slightly curved, to correspond to the curve of the urethra, should be used twice or three times a week until all discharge ceases, then once a week for some time afterward. Solutions of sulphate of zinc, sulphate of copper, sugar of lead, permanganate of potassium, etc., may be used in the same way, if desirable. The insertion of a cold, solid steel bougie once a day, or every alternate day, will very often cure gleet without medication. Bougies may be anointed with ointments of any description desired, and inserted, allowing them to remain a few moments, until the heat of the urethra melts the ointment off the instrument. Some bougies are made especially for this purpose, by having small depressions, like cups, along their sides. The ointment is placed in one or more of the little cups, the instrument is then inserted, and held at the point of irritation until the ointment is melted out. By this means the application may be made to any portion of the urethra desired, without interfering with the healthy parts. The following are the substances most commonly used for anointing bougies, being placed according to their importance.

Blue Ointment (Ung: Hydrarg:).

Nothing better than this.

R.
Red Precipitate (Oxid. Rubrum Hydrarg.,) gr. v.
Simple Cerate, or Vaseline, ʒ i.
Mix.

R.
Pulv. Sulphate Copper, gr. xv.
Cerate, ʒ i.
Mix.

R.
Nitrate of Silver, gr. xv.
Cerate, ʒ i.
Mix.

R.
White Precipitate (Amm. Hydrarg.) gr. xx.
Cerate or Vaseline, ʒ i.
Mix.

If the case is one of chronic gonorrhœa or true gleet, you may rest assured that by proper treatment, general and local, that a speedy recovery will result; but if it is due to stricture, then of course you cannot hope to relieve only by removing the cause.

Thus far we have confined ourselves strictly to gonorrhœa as it exists in the male; but we also have to contend with it as a disease of females, so it becomes necessary to make a few brief remarks upon that subject.

Of course the cause is the same in the female as the male, but it does not always affect the urethra in the female—in fact, rarely inflames any part save the mucous lining of the vagina. The diagnosis is consequently not so easy as in the male. The most prominent symptom is the abundant discharge of a yellow, or yellowish-green matter, either with or without some burning attending micturition. The amount of matter discharged is often aston-

ishing, flowing almost as freely as the menses in some instances. When we reflect, however, upon the amount of mucous surface involved, we can readily understand that under the influence of active inflammation it is capable of secreting large quantities. You meet with no complications in the female, save an occasional cystitis, which is very easily relieved by the remedies used in the male.

The *treatment* of gonorrhœa in the female, in principle, is the same as in the male, except you cannot expect as much relief from internal remedies. If there is ardor urinæ, then copaiba, cubebs, buchu, etc., may be given with advantage. The use of a proper injection, however, readily relieves any case, the amount of fluid used, of course, being much larger than in the male.

℞.
Pulv. Alum, ʒ ii.
Pulv. Sugar of Lead, ʒ ss.
Morph. Sulph., ʒ ss.
Aqua Dest., ℥ viij.
Mix.

Use one tablespoonful in one pint of hot water three times daily.

If it produces pain the amount water may be increased.

℞.
Permanganate Potassii, ʒ i.
Make twelve powders.
One in a pint of rain water three times daily.

I have never seen anything superior to it.

If a case should be obstinate, you may apply a five or ten grain to the ounce solution of nitrate of silver to the vaginal walls, through a speculum, with positive results.

Let me here caution you that women so frequently have discharges as the result of inflammation of the uterus, which sets up inflammation of the vagina. You should be very cautious in pronouncing a case gonorrhœa. If the woman is married, and is suspected and accused by an ignorant husband, and you are called in to decide, or if it be an unmarried lady whose chastity is doubted, and you are called upon to decide, always give the accused the benefit of the doubt. By a wrong diagnosis, in cases of this kind, you may destroy the peace of a happy family, or consign an innocent girl to a life of misery and despair.

I now leave this subject, warning you against rash and premature conclusions, or positive promises in regard to its cure, assuring you again that the most unsatisfactory of all diseases to treat is *gonorrhœa*.

LECTURE XIII.

SYPHILIS.

GENTLEMEN:—Before alluding directly to the symptoms, diagnosis, prognosis, treatment, etc., of syphilis, it is but proper that your minds be fully impressed with some points of special interest in connection with this much dreaded disease.

1. *Syphilis is a specific disease*, due to the presence of a specific virus in the system, and while it is capable of affecting any of the tissue, connective tissue suffers most.

2. *It is contracted by actual contact with the virus, and in no other way.* This contact, generally, takes place through sexual intercourse, but may be affected in other ways. The first appearance of the disease being *always* at the point of inoculation.

3. *There is a distinct period of time in every case, between the date of contact and the appearance of chancre, which constitutes the period of incubation.* This period is usually three weeks, though it may be as short as ten days, or as long as three months.

I have now under treatment a gentleman who had not had sexual intercourse for fourteen weeks prior to the appearance of chancre, and the superficial ulcers on his tonsils and uvula are the most obstinate I have ever met, having not yet yielded to the most gigantic doses of iodide of potassium, and through mercurial inunction, or to mercury alone, after a treatment of six months.

4. *A person being affected with syphilis once is not liable to future attacks.* The disease being of the same class as small-pox, measles and scarlet fever, the system is no more likely to be affected by it twice than it is with either of these. This rule applies even if actual contact with the poison occurs, where a person has had syphilis, though there may be no evidences of the disease, he may have frequent connections with one who has chancre at the time, and no effect will be produced. There are numbers of cases on record where the same person has twice gone through with a regular course of syphilis, but this is the exception, and not the rule.

Three cases of this kind have come under my own observation. The first, a Chinese, whom I treated twice for chancre, followed by the regular course of secondary lesions, the second chancre appearing two years and a half after the first. Another, a gentleman, treated two years since, informed me that he had a hard chancre ten years before, followed by sores on the tonsils, tongue and

lips. The third consulted me three weeks since, in regard to a sore upon the prepuce, which had all the characteristic signs of chancre, viz.: round, with adherent edges, split pea induration of its base, and induration of lymphatic glands in the groin. Sufficient time has not elapsed for secondary manifestations to appear, yet I am confident they will appear in three weeks more. This gentleman had a very severe attack of syphilis fifteen years ago, at which time he had large ulcers upon his legs, and very obstinate ulceration of the throat.

5. *Chancre is sure to be followed by secondary symptoms, even if proper treatment is commenced early.* This is a very true rule, but I must here mention a case which I believe an exception. Four years since treatment was commenced in a case, immediately after the appearance of chancre, and was continued for three years, during which time, nor yet, has the slightest secondary manifestation occurred.

6. *Syphilis can be contracted by contact with a syphilitic lesion, either primary or secondary; also from the blood of persons in the secondary stage, and probably in the primary.* The milk, perspiration, saliva, tears, etc., do not transmit the disease, though the saliva from a mouth in which mucous patches exist, may inoculate simply by conveying the secretion of the patches, not *per se*. The secretions from a tertiary lesion is supposed not to be

inoculable, but as the exact boundary line between secondary and tertiary has never been clearly defined, this is yet a disputed point. It is very likely that the secretions of a *purely* tertiary lesion are non-inoculable.

7. *A man should not marry until at least two years have passed since the appearance of chancre, having, during that time, gone through a proper course of treatment, which, if necessary, may be continued afterward.* There is no harm to himself or wife (if due care is taken) after the first year, but the offspring may suffer. Man has no right to bestow the miseries resulting from his follies upon little innocent beings who are not in the least responsible. Yet how many rest beneath the snow white marble in the lone graveyard who were the victims of marriage too soon. How many healthy and innocent mothers are so deeply bowed down in sorrow, because every babe to which they give birth soon sickens, withers and dies. They are puzzled to know the cause, but perhaps are never aware that the fathers of those children are syphilitic, and that this is the key which unlocks the mystery. The fault is often laid to providence when man is alone to blame. A woman should not marry for three or four years after the appearance of chancre, as she cannot bear children with safety (to the child) earlier. The semen of a man suffering with syphilis is not directly inocuble, whether he is under treatment or not, but it may

affect the offspring; though the danger is far greater when the mother is syphilitic.

8. *That syphilis can be cured, should no longer be a disputed point, though some eminent observers still claim it incurable.* It has been said by a very eminent writer that "a man who has syphilis once will have it for life, and his ghost after death will be syphilitic;" and this utterance is often quoted with pride by those who still advocate its incurability. While, perhaps, it may seem presumptious to differ from authority so high, nevertheless I am thoroughly convinced that some cases of syphilis actually get well, and there is never a return. There are undoubtedly many who have syphilis that are troubled with some symptoms every few months or years through life, yet a large majority of the cases, which receive a proper course of treatment, never return in any form. Many persons have scarlet fever, measles, rheumatism, pneumonia, etc., and feel the effects through life; while many others completely recover and feel no ill results. This depends on the constitutional peculiarities of the patient, not on the obstinacy of the disease. In like manner syphilis may make its presence manifest, ever and anon, for years and years, or after the first year nothing may ever occur to remind the patient of its previous existence. The author who originated the "syphilitic ghost" idea was among the first to demonstrate clearly that syphilis could affect the

same individual twice, and give forth the same characteristic manifestations in both instances, proving thereby that it could be cured—so thoroughly cured that not even the immunity usually granted by the first attack remained.

10. *The dread of syphilis is far worse for the patient than the disease.* There is no disease known whose symptoms are more amenable to treatment, yet a syphilitic is constantly brooding over his "terrible malady" considering every ache, pain, pimple, cold, etc., as manifestations of the disease. It is true there is no means of determining whether a person once treated for syphilis will have a return, yet a regular course of treatment, which should be at least two years, is a pretty sure guarantee.

Syphiliphobia, therefore, (the dread of syphilis) is a far worse disease to contend with than syphilis, for we can cure the latter, but the former is hard to remove from the mind.

11. *Syphilis is a disease that is no respecter of person*—the young, the old, the rich, the poor, the healthy, the delicate, are all equally liable to contract it. It is found from the humblest hovel of the hard-handed laborer, to the most magnificent palace of the land—in the babe nursing its mother's breast, and the old man trembling near the grave.

12. It is possible for a person to convey the disease and not have it himself. For example, a man who has syphilis may have connection with a healthy woman, and during the act, some of the matter be deposited in the vagina. In a short time afterward another man has connection with the same woman, comes in contact with the poison deposited by the former, and as a result is affected in due time, with syphilis, while the woman remains healthy.

A few such cases have come under my observation. The reason assigned for this, by all authorities, is, that the poison is wiped away, and the woman, thereby escapes; but I am sure that such is not the case, for it would be difficult for the vagina to be thoroughly wiped by the sexual act, and again, it is unreasonable, since a few seconds only are necessary for absorption to take place. It is more probable that the escape of the woman is due to her having been affected with hereditary syphilis when a babe, and thereby, granted an immunity from future attacks, or she possesses that natural immunity which exists in many people from contracting different diseases. You will see persons every day who cannot be successfully vaccinated, and persons who have never had small-pox or measles, though often exposed, etc.

In order that you may clearly comprehend, we lay before you the course that a typical case of syphilis pursues when not treated. After contact

of the poison with a surface capable of absorption, no signs are noticed for from two to four weeks, but as a general rule, in twenty-one days the initial lesion or chancre shows itself, at the point of contact. The chancre always appears on the part that was brought in contact with the virus, whether it be the genitals, the finger, the lips, the nose, or elsewhere. There then comes a lull called the second period of incubation, which, while it varies from twenty-five days to three or four months, generally strikes very closely to six weeks, at the end of which general symptoms manifest themselves. The first general outbreak noticed consists of a peculiar eruption belonging exclusively to this disease, though it may resemble other skin diseases. It is usually quickly followed by an inflammation and ulceration of the tonsils, known as syphilitic sore throat, with peculiar lesions on the internal surface of the lips, cheeks, tongue, etc., called mucous patches. The majority do not feel anything to warn them of the approach of a general outbreak, but many suffer for a few days prior with a slight fever (which in some rare instances runs very high), with a feeling of langour, more or less aching in the limbs and back, especially at night. The hair falls out rapidly and suddenly in some cases, and the glands in the back of the neck and behind the ears become evidently enlarged and engorged. One outbreak after another occurs upon the skin during the first twelve or fourteen

months. In each succeeding attack the eruptions seem to be deeper seated, more obstinate and more localized, grouping together rather than being generally distributed. After one year there is generally another period of rest in the symptoms.

It may be that months elapse before any other evidence of the disease is manifested, while, in some cases, the third and last set of symptoms show themselves immediately. These last symptoms are very severe, involving, as they may, every tissue in the body. They are especially characterized by connective tissue, hyperplasia, or by a peculiar deposit called gummata, and, in either case, the arteries in the affected part become thickened. Ulcers, deep and foul, may occur in the skin, or the mucous membranes of the stomach and bowels. The throat is often the seat of gummy ulcerations, which advance rapidly, completely destroying the uvula and tonsils. The soft bones of the nose-ethmoid, inferior turbinated, palate, etc., may die and come away. Any of the bones are liable to die from destructive ulcerations, especially the crest of the tibia. The lungs, heart, liver, pancreas, spleen, kidneys, bladder, nerves, brain, muscles, tendons, are liable to come in for their share of suffering from this dread monster. After this third set of symptoms have exhausted themselves, the disease has then spent its force, and its tendency is to leave its sufferer spontaneously. Yet, while we may say that syphilis naturally inclines to get well, this is

poor encouragement, for, unless the constitution is very strong, it is more than likely that during the ravages of its third stage some vital organ may be so impaired and its action so interfered with as to produce death, or leave the patient to eke out the remainder of his days in misery and despair. In short, its course is first a mild attack upon the vital fluid, then, with a rest and reinforcement, it wages its battle with increased energy; then after another rest, it again charges with all its combined strength, and at last leaves its mangled and exhausted victim to take care of himself.

I would state just here that some cases escape the tertiary stage. After having late secondary manifestations, such as a return of the early skin eruptions, together with periosteal inflammation and pains in the bones at night, all appearances leave, and the patient is well again.

The three distinct attacks and separate sets of symptoms have caused the disease to be divided into primary, secondary and tertiary. While this is a true picture of a case of syphilis when left to itself, yet it can but be somewhat imperfect, owing to the very great irregularity of its nature. Hardly any two cases are exactly alike. In some the primary sore being so small as to pass by and heal unnoticed, the patient not being aware of his affliction until his attention is called by the secondary eruption on the skin. In others, gummata appear as early as the fourth or fifth month, and in

others, symptoms are strangely reversed. It requires the very closest observation on the part of a physician, and some years of experience, before he is enabled to recognize it in all the many forms in which it presents itself. To illustrate: I will recite a case to you, which came under my care, near two years since. Mr. J. P. came to consult me in regard to a severe pain over the right eye, in the region of the opthalmic nerve. There was at first no perceptible difference in the intensity of the pain during the night and day. I considered it an ordinary neuralgia, and prescribed some anti-neuralgic remedies. Under the influence of aconite, quiniæ and arsenic, he became some better, and left for the country, where he continued to improve for about three weeks, when the "*old pain*" returned. This time it was almost unbearable in the night, but became much easier during the day. He came to the city and again consulted me in regard to it. For the first time, suspecting syphilis, I inquired closely in regard to it, he insisting that he had never had any venereal disease, to his knowledge. Believing him to have no motive in deception, I was again led to try anodynes, etc., for its relief. He came again in four days, declaring that the pain grew worse, from night to night, and that he would rather commit suicide than endure it longer. I determined to put him at once upon syphilitic treatment, as a last resort. (It is proper here to state that I

found no induration or enlargement of any glands in the body.) I, accordingly, gave the following prescription:

R.
Iodide of Potassium, ʒiv.
Hyd. Bi-chloridum, gr. ij.
Aqua Dest, ℥vi.
Morph. Sulphatis, gr. iv.
Mix.
Take one teaspoonful three times daily.

On the following morning he sent for me at his house, very much alarmed. When I arrived, I found his arms, palms of his hands, body and face completely covered with a sudden outbreak of secondary eruptions, which was positive proof that the remedy, given the day previous, had not been misdirected. I explained to him the nature of his disease, and directed him to continue the treatment, and in four days he felt entirely relieved of his neuralgia, which had now lasted two months. In four weeks longer his skin was perfectly clear, and under appropriate treatment, ever since, he has not had an unpleasant symptom.

I do not mean for you to infer that the iodine and mercury caused the disease to develop itself, on the other hand, had they been prescribed soon, such an extensive outbreak would not have taken place. The disease only happened to show itself on the day after these remedies had been given. I men-

tion this case to show how far the disease may, in some cases, go out of its ordinary course of development. It, therefore, behooves us to be ever watchful, not knowing at what point, or in what manner the insidious monster may make his attack. There can be no doubt, however, but that the primary lesion had existed at some time previous in this case, as in all others.

LECTURE XIV.

SYPHILIS—Continued.

The period of incubation in syphilis, which has been alluded to in a previous lecture, is the length of time which intervenes between the contact with the poison and the appearance of the chancre (primary lesion). The average length of time from exposure to the appearance of the chancre is twenty-one days (three weeks), while in some exceptional cases it appears as early as the tenth day, in others as late as seventy days, or even ninety days. The rule is, however, to expect the sore to appear very close to the twenty-first day, perhaps two or three days sooner or later. During this period of incubation nothing unusual takes place with the patient; he feels well, eats, sleeps, and to all appearances is well, but at the end of that period the chancre is sure to appear just where the poison came in contact.

There are several different varieties of chancres, with which you should become familiarized; for example, upon genitals, the raw erosions, more or less indurated; the superficial ulcer, more or less indurated; the deep, cup-shaped ulcer, always in-

durated; the herpetiform chancre, which may assume the character of either one of those mentioned; the mixed chancre. Chancres of the nipple, general skin, lips, urethra, anus, rectum, scrotum, also have their peculiarities.

The form of chancre known as the *raw erosion* is by far the most common. In a large majority of cases this will be the type of chancre seen, while the other varieties will be met with occasionally.

It may be found on any part of the skin, or mucous membrane, or where one becomes the other (semi-mucous surfaces) and has, as its name indicates, a raw beef appearance. They vary from the size of a pin-head to a patch as large as a silver quarter of a dollar. There is no exudation from its surface save a thin, watery discharge, sometimes slightly tinged with blood. This raw surface is generally oval or rounded and its edges smooth. Occasionally there exists three or four on the same patient, but when this is the case they all appear near the same time, not one being produced by the other. This variety is often seen in the female, on the labia majora, or labia minora, and is very little indurated. In such cases they must not be mistaken for chancroids, or simple ulcers.

The *superficial ulcer* is nothing more than the raw erosion slightly ulcerated. The edges of this ulcer are closely adhered to the tissues, and are generally sloping, while the surface is of a grayish, or grayish-white appearance, with a very scanty

secretion, usually serum and purulent matter mixed, sometimes tinged with blood. This variety of chancre very frequently exists as a raw erosion at first and becomes ulcerated, consequently it is often met with in cases upon whom the primary sore has existed some days before examination. This variety of chancre is usually indurated at its base.

The *Hunterian chancre*, so named from the great syphilographer, John Hunter, was formerly regarded as the only type of true chancre, but with the lights of the present day it is known to be of rare occurrence. It consists of a large indurated mass of tissue, rounded in form, and presenting in its centre an ulcer of oval or rounded form, which extends deeply into the induration, has closely adherent and sloping edges, is cup-shaped, being deeper in the centre than at its circumference. The bottom or floor of the ulcer presents the soft appearance of a macerated substance, the ulcer discharges a thin puriform matter in small quantities.

The *herpetiform* variety of chancre is of extremely rare occurrence. It occurs in the form of ordinary herpes at first, which, instead of healing, rapidly ulcerate and coalesce, forming one large ulcer, which is very much indurated at its base. I have seen, perhaps, three cases of this variety of chancre, all occurring in persons who were subject to herpes previously. It is more than probable that herpes existed at the time of contact,

consequently two or more points were simultaneously inoculated; or herpes existed at the time the primary lesion should make its appearance, and each one of the little abrasions ulcerated from a syphilitic blood.

By a *mixed chancre*, we mean that a person can have chancre and chancroid at the same time. For example, a man has a connection to-night from which he contracts syphilis, two weeks hence he has connection with a different woman, from which he contracts chancroid. The chancroid appears within three or four days, is perfectly soft, painful, discharges freely, etc. We examine the patient at this time and say he has nothing but chancroid, a local affection, and prescribe accordingly. A week or two later the sore assumes a different appearance entirely, becomes indurated, its edges smooth, perhaps adherent, and in due time secondary manifestations appear. The patient was the subject of chancroid at the time of the expiration of the incubative period of syphilis, and the chancre appeared in the same locality. Sometimes the chancre and the chancroid both appear at the same time, when the sore presents the appearance of a chancroid, but is at the same time indurated. It is in this way, I think, that you often hear of secondary manifestations resulting from soft chancre.

Chancres of the general integument, whether upon the scrotum, fingers, face, nose, or elsewhere, may exist in any of the forms just mentioned as

occurring on the genitals. There may be a large or small raw surface, a dry papule, or tubercle, either elevated or flattened, or there may be a large indurated ulcer. Chancres of the general skin are not often met with in general practice, but have been observed as the results of auto or hetero-inoculations.

Chancres of the lips are of rather frequent occurence in large cities, and consist of a large rounded mass of induration, with a raw or an ulcerated surface. This variety of chancre is contracted too often by innocent persons, from the act of kissing. Some gallant youth, aspiring for the hand of a beautiful, virtuous girl, wins her love, embraces, and places the kiss of love upon her lips. How sweet is the kiss, but, ah! how bitter the results. In that kiss was a venom, which, being deposited upon her lips, was instantly taken into her pure blood, producing, in due time, all the terrible consequences of which it is capable. The young man had syphilis at the time, and a small secondary ulcer upon his lip was the cause of all the trouble. Men who associate frequently with prostitutes, sometimes contract syphilis by kissing those who have secondary ulcers upon their lips.

Chancres may also occur first upon the nipples from nursing a child whose mouth has syphilitic ulcers in it. They may assume any of the forms heretofore mentioned. Dr. E. L. Keyes reports a case of flat mucus papule, scabbed, and but little

indurated, occurring in the multiple form, there being four upon one nipple, and eight upon the other.

There is another variety of chancre, known as *urethral.* Chancre of the urethra is generally situated very near the meatus, and involves one of the lips. It sometimes occurs, however, from a half to two inches down the urethra. I have never seen one deeper than one-half inch, but Dr. Keyes reports a case which came under his observation, one and one-quarter inches from the meatus. This was recognized through the tube of the endoscope. The urethral walls can be examined thoroughly for two or three inches back, by means of the meatoscope, which is nothing more than a small, hard, rubber tube, with a flange at its outer extremity, or by an instrument devised by myself, and manufactured by J. Reynder, of New York City, which he chooses to call the urethral speculum, The instrument can be had of two or three different sizes, if desired. It is near six inches in length, made of metal, nickel-plated, and its shape is that of a half-tube. The edges are rounded and smooth, and at one end is a short handle (about one inch) meeting the body at right angles. It is not only serviceable in recognizing ulcers in the deeper parts of the urethra, but can be used to apply strong medicines to any particular part of the spongy portion of the urethra.

When urethral chancre first makes its appearance

there is, usually, a slight discharge from the urethra, which may be mistaken for gonorrhœa, though the presence of the chancre is easily recognized by a hard mass at some point along the course of the urethra. In some cases a very violent urethritis follows within three or four days after contact, resembling gonorrhœa in every symptom, which subsides, to some extent, with the appearance of the chancre. To illustrate: Mr. ——— had illicit intercouse on the 20th day of November. In three days he noticed a purulent urethral discharge, attended with *very* painful micturition, chordee, etc. This continued with increasing severity for nearly three weeks, defying all treatment, when it gradually subsided. In a few days, he, feeling quite well and free from pain and discharge, opened the lips to look into the urethra, when, to his dismay, he discovered a chancre just inside the meatus. In two days more it showed itself along the edge of the left lip. Dr. W. L. Nichol, of this city, informed me of a similar case which came to his notice several years since.

Syphilis never exists without chancre.—In some cases the chancre may be very small, and through cleanliness and astringent washes may heal without its presence being noticed; again chancre may exist on the neck of the womb, and, causing no pain, its existence is not recognized. Or the woman, feeling some soreness, concludes that her womb is inflamed, and uses

some ordinary wash, which relieves her and heals the chancre, yet in due time the secondary manifestations will crop out. I will mention a case in point. Two years since a gentleman consulted me in regard to a *sore* on one of the lips of the urethra. Upon examination I found it to be a genuine chancre, and so informed him. He had cohabited regularly with the same woman for three months prior, once or twice a week, and insisted that she had never had any disease since he had known her. She also declared (as prostitutes generally do) that he could not have contracted it from her since she had had no sore or anything of the kind. Upon close questioning she admitted that, five or six weeks before, she felt a slfght soreness in her womb, as she had often felt before, and which was speedily relieved by an astringent wash. To them the case was a mysterious and complicated one, the man declaring that he had not had connection with any one else for months, the woman asserting positively that she knew she had never suffered from any *private* disease in her life. I advised that all wait and allow time to shed its light upon the case. In four weeks from that time the woman sent for me to advise her in regard to an eruption that had recently appeared upon her breast, arms, and palms of her hands. At a glance I recognized the papular eruption of secondary syphilis, and then everything was plain. Her supposed uterine inflammation was a chancre, the man had contracted it at that time,

and the chancre on the neck of the womb had since healed under the use of washes.

It is said by some authorities that a syphilitic father may beget a child, which, while in the womb, will develop secondary sores and from them inoculate the mother, who will have syphilis in a modified form. That is to say, her system will be sufficiently influenced to prevent her from contracting the disease in future, though only slight symptoms may show themselves externally. This theory is absolutely wrong, for if the woman is infected by contact with a secondary sore, she certainly has a chancre, and if she has a chancre she will surely have secondary symptoms. I am of the opinion that if a mother is ever so impressed through her fœtus as to grant an immunity from syphilis, without any external manifestations, that she has no chancre at all, but that the impression is made on the mother's blood while she is acting in the double capacity of furnishing nutriment for the being in utero and herself, her system being the avenue through which the broken-down material, resulting from nutrition of the fœtus, is eliminated. I say that if such a thing does occur, it must be from exhalations from the syphilitic blood of the fœtus, which, through the plancenta, reach the blood of the mother also.

We have spoken often of induration in connection with syphilis, and perhaps it is best to explain just what is meant by that term. The word indura-

tion, of course, literally means *hardened.* Now, then, when a chancre is indurated at its base, the tissue immediately underneath the ulcerated surface is very hard, and with well-defined boundaries or margins. This hardened structure often extends for some distance beyond the edges of the ulcerations in every direction. There may be a very small ulcer accompanied by considerable induration. To properly determine if an ulcer is indurated, hold it between the thumb and forefinger and press the sides together underneath its edges, which movement lifts the sore out of its bed. If there is induration, your fingers meet some hard obstruction, which prevents them coming closely together. The sensation imparted is very much as though there was a small piece of hard clay, a smooth gravel, or piece of India rubber imbedded just under the skin. In applying the finger and thumb directly to the edges of an indurated sore and pressing them together, the sensation of a dry, burnt surface is imparted. Induration is very important as a diagnostic sign in chancre, though it is not always present. A chancre can exist which is not indurated, but, which is, nevertheless, a genuine syphilitic sore. Induration, however, is a very constant attendant, and it is an exception for a chancre to be without it, more or less. From the remarks just made, we deduct the following facts, viz.: there are three distinct varieties of induration met with:

1. A dry, brittle feeling underneath an ulcer, which is sometimes so slight as hardly to be perceptible, and never recognized unless the ulcer be firmly caught between the thumb and forefinger.

2. The next form is what is known, by most authorities, as the *split-pea* variety. That is to say, underlying the ulcer, is a hardened portion of tissue, which is flattened on top, and rounded or convex at the bottom. It is almost entirely void of sensitiveness, except upon very strong pressure.

3. The next form is similar to the latter, except that the induration is not so closely limited to the size of the ulcer, but far exceeds the limits of the ulcer. It may be a small ulcer and a very large indurated surface. Accompanying chancroid there is often a hardened swelling around the sore, which tapers off gradually into the surrounding tissues. This must not be mistaken for induration, for in specific induration the edges of the hardened portion stop abruptly, and do not slope off into the surrounding structures.

Phagedena, as a matter of course, destroys induration on account of its tendency to rapid eating away of the tissues. When phagedena attacks chancre, induration of the base must not be looked to for diagnosis, but other means will aid, such as history, indurated lymphatics, etc.

The first appearance of a chancre may be in many different ways. There is sometimes a dry,

elevated papule, red on top, or a dry, reddened spot which is smooth and flattened. Upon a mucous membrane a small erosion or ulcer is the first evidence of the disease. These papules, red surfaces, erosions and ulcers may or may not be indurated. The amount of induration in each one often varies a great deal; in some it is so slight as to be scarcely felt, even by careful and delicate touch, while in others it is so well marked as to be almost recognized by the eyesight, without touch. In many instances, induration precedes the appearance of the ulcer or erosion, a considerable portion of the base becoming very hard before the surface is broken. In some cases the chancre appears as a pustule or vesicle, but this is simply a coincidence, and does not really belong to the chancre.

There sometimes exists an erysipelatous inflammation of the parts prior to the appearance of the ulcer, while in many cases this inflammation follows the appearance of the chancre. Sores on the frenum are very liable to be accompanied by this type of inflammation. As stated before, the most frequent form noticed in the female is an erosion around the mouth of the vagina, or on the labiæ, but we sometimes meet the flat, dry, red surface, or the raised tubercles, the superficial ulcer, or even the genuine Hunterian chancre. Let me here caution you, that the superficial ulcers or erosions so frequently found along the upper part of the mouth of the vagina are rarely accompanied by induration

of any note, consequently it must not be looked to as a sure means of diagnosis, but the oval or round shape, and smooth, sloping edges of these sores, their raw appearance, and scant, perhaps bloody secretions, are sure indicators as to the nature of the disease. If a chancre is left without treatment, it often gets well in ten days or two weeks, sometimes, however, it lingers for many months without growing much worse, but not inclining to get better. The voluntary healing of the chancre in a short period of time does not prevent or lessen the force of secondary manifestations.

LECTURE XV.

DIAGNOSIS OF CHANCRE.

GENTLEMEN:—Pursuing this study, we naturally ask, can a case of genuine syphilis, in the primary form, be thoroughly and positively made out, so that we can surely distinguish it from chancroid, and other local affections of the genitals. I should answer that, while there is no single symptom that can be taken as pathognomic, yet by a careful examination of all the different signs in nearly every instance you can tell the patient, with certainty, whether he has syphilis or not, when the chancre first makes its appearance, but it is sometimes next to impossible. If a person presents himself with a venereal *sore*, and you can certainly ascertain that he has had no connection whatever for the two weeks prior to its appearance, then it is *almost certain* that the sore is a chancre. Unfortunately, however, for diagnosis, you are rarely able to learn anything in regard to the incubative period, since most men have connection at least once a week, or, perhaps, much oftener. I regard the incubative period as the surest sign of any single one belonging to chancre, especially when it is not under twenty-one days. This means of diagnosis being

destroyed, we then look for others. We examine the lymphatics in the immediate neighborhood, viz.: those of the groin. If the sore has very recently made its appearance, the probabilties are, that nothing unusual or unnatural exists about them. If the sore has been in existence for one or two weeks, then one or more of the glands will be slightly enlarged, or thickened, and more or less indurated. The enlargement is sometimes so great as to be distinctly seen bulging the skin, while in other instances it is only perceptible by careful examination, with the fingers. Usually, at first, only one gland is enlarged, others gradually following until there is more or less of a bunch or cluster of them. This condition may occur in only one groin, or in both sides alike, or there may be several on one side and only one on the other. These enlarged and indurated glands are called syphilitic buboes. They always occur in the glands which are directly connected with the chancre. If the chancre is on the lip, bubo comes under the jaw, if on the breast, in the axilla, on the genitals, in the groin, and so on. Syphilitic buboes rarely inflame sufficiently to reach the point of suppuration. They may be very sore for a few days, but instead of this increasing, it gradually subsides, leaving it enlarged and indurated, but not tender. While I regard indurated glands in the neighborhood of an ulcer as a very sure means of diagnosis, let me here correct a very current

error, that all indurated, or more properly speaking, hypertrophied lymphatic glands in the groins, are evidences of syphilis without a pre-existing chancre. There are many cases of spontaneous enlargement of the lymphatics of the inguinal region, which remain so for months and perhaps years, and at the same time are *very* hard. These must not be considered syphilitic. It is when a sore presents itself on the genitals, and is accompanied or followed (within three weeks) by enlargement and hardening that they are important diagnostics.

Again, the *appearance* of the sore is, to an experienced eye, a very strong point in determining its nature. The ulcer in syphilis has a peculiar and marked appearance, differing from other sores, which occur on the genitals, and when thoroughly understood, can hardly be mistaken for anything else. The edges of a chancre, are smooth or rounded, that is to say, they are not jagged, loose and irregular, as in other diseases. You will find the edges adhered to the tissue beneath, and, therefore, presenting a sloping appearance toward the center of the sore. Much has been said by old writers in regard to the peculiar copper-colored appearance of the floor of a chancre, and unnecessary stress has been laid upon this point, leading, thereby, to grave and unpleasant mistakes.

While in some cases there is a well marked copper or brownish color, in the large majority of cases this peculiar color does not exist. As you

have already seen, there are several varieties of chancre, and each one, of course, has its own peculiar appearance. In many cases you will find a false membrane, resembling somewhat the membrane of diptheria, which, when removed, reveals a superficial ulcer. The raw erosion presents, as its name indicates, the appearance of fresh raw beef—a red, burnt-looking floor. The superficial ulcer giving the pultaceous and whitish, or grayish-white, floor, while the Hunterian chancre presents very much the same appearance. The appearance is often greatly changed, by the patient applying lunar caustic or strong acids.

Induration of the base, when present, is a very prominent and positive symptom of chancre. Upon examination of a suspicious sore, if the edges are stiff, and the tissue underneath presents either variety of genuine induration, it may be considered as conclusive that the sore is chancre. If every variety of chancre was as well marked by induration as the Hunterian, then we would need no other means of diagnosis. But in some instances the induration, if present at all, is so slight as to be hardly perceptible.

Chancres are generally *superficial* abrasions, involving only the outer skin, or mucous membrane, and if deep, they slope like a funnel towards the centre.

Auto-inoculation fails to develop anything further than an ordinary pustule, which does not bare the

marks of a chancre. If the lymph of a chancre be placed on a raw surface on some remote part of the body of the same person, it produces no effect other than a sore from the local irritant properties of the syphilitic virus. The reason for this is plain; the blood being already impregnated with the poison of syphilis, it cannot be further inoculated, no more than you could produce small-pox in a person who who was suffering with it at the time, by inoculating him from his own sores.

The *number* of chancres is another important consideration in this connection. There is very rarely but one, and if there is more than one, they appear altogether at the end of the first period of incubation, the number not increasing by successive inoculation. I am firmly impressed, from careful observation, that this rule is true.

There are cases in which abrasions from want of cleanliness or from herpes, take place a very few days after the primary sore has shown itself, and, being irritated, they are sometimes developed into genuine chancres.

This, however, is not due to inoculation from the pre-existing sore, but to the out-cropping of the poison from the blood at these irritated and inflamed points. To illustrate, if a patient was suffering from the fever of small-pox, and towards the close of the second day several raw surfaces should be made upon different parts of the body, each one of these surfaces would, most likely, be-

come the seat of a small-pox sore. The successive appearance of two or three chancres, then, is merely accidental, and never the result of auto-inoculation.

The *secretion* from a genuine chancre is, as a rule, scanty, rather thin, and often bloody, while in chancroid, it is very abundant, and rarely bloody. Chancre is not attended with any great degree of sensitiveness. The patient will tell you that the sore is not painful; he can handle it rather roughly without producing any decided pain, etc. The primary sore of genuine syphilis does not enlarge rapidly. This is a very noticeable and important diagnostic sign. Chancre eats very slowly, and does not destroy much tissue, neither is it very liable to take on phagedena.

There is one other point in this connection which is not plainly set forth in the text books upon this subject, which I have observed carefully and regard as a valuable addition to our means of diagnosis, and that is *obstinacy*. By obstinacy, is to be understood not only the stand-still nature of the sore, neither increasing or diminishing in size, but especially applies to the futile efforts to improve its condition by local means without proper constitutional treatment. Of course this does not apply to all chancres, for there are many which heal rapidly by local treatment; but when a patient presents himself with a small ulcer upon his prepuce, and suspecting it to be chancroid, you burn it with nitric acid; in a few

days the eschar sloughs out, the little sore still stands, keeping perhaps the same appearance as before; you then apply in succession, iodiform, sulphate of zinc or copper in solution, tannin, alum, solutions of solid nitrate of silver—and the little sore stands unphased and unshaken, not much worse, but no better, you may strongly suspect chancre. Like Achilles, all the arrows strike against its body and fall powerless to the ground, until that vulnerable point is struck with the arrow of mercury, then the result desired is accomplished.

In order that the differential diagnosis between chancre and chancroid may be thoroughly and accurately understood, we will now place their diagnostics side by side, and note carefully the differences.

CHANCRE.

1. *Character*—A blood disease.

2. *Cause*—Contact with the secretions of a chancre, syphilitic blood, or the discharge from a secondary sore. Usually contracted through sexual intercourse.

3. *Number of Sores*—In nearly every instance, only one; if two or more, they exist from the first, never by successive inoculation.

4. *Period of Incubation*—Always present, and generally twenty-one days; rarely, if ever, less than fourteen days, nor more than four months.

5. *Locality*—Upon the genitals, as a rule; sometimes on the lips, nipples, or fingers; rarely elsewhere.

6. *Depth*—Usually superficial; if deep, they are funnel or cup-shaped, sloping towards the centre.

7. *Appearance and shape.*—Edges adherent, flat, or rounded, sloping; floor raw, red and fiery, pultaceous or copper-colored, sometimes covered by false membrane. The sore is round or oval, sometimes a fissure, not jagged and irregular.

8. *Induration.*—Generally present; firm and isolated, resembling a hard, foreign body underneath the sore, movable upon neighboring tissues. The indurated portion not painful when squeezed between the finger and thumb.

9. *Secretion and Sensibility.*—Secretion is scanty and sanious. Never auto-inoculable, unless secretion is purulent, then produces only a local sore. Not sensitive to the touch.

10. *Condition of Lymphatics.*—They rarely suppurate, but those in the groin are nearly always more or less enlarged and indurated, especially after the first week. Two or three days after they become affected all tenderness leaves them, but they remain indurated for months. The lymphatics of the penis sometimes become indurated, but are very rarely inflamed.

11. *Liability to second attack.*—No more probable

than to have small-pox twice. It does occasionally occur.

12. *Beginning.*—Begins as a papule, dry tubercle, or raw erosion, each of which usually ulcerate afterwards.

13. *Obstinacy.*—Not inclined to eat rapidly; stand-still nature; not easily changed by local application unaided by constitutional treatment.

14. *Medicines.*—Mercury internally always beneficial, at the same time of local benefit.

15. *Transmissibility to Lower Animals*—A mooted point; some eminent authors on each side of the question. I think it hardly possible in quadrupeds; probable in apes and monkeys.

16. *Results if untreated*—Secondary manifestations within four months, nearly always in six weeks. Rarely attacked by phagedena.

CHANCROID.

1. *Character.*—A purely local affection; never is nor never can become constitutional from the beginning to the end.

2. *Cause*—Contact with chancroidal pus during sexual intercourse. Can be produced either by auto or hetero-inoculation.

3. *Number of Sores*—Often two or more from the beginning; if commencing as one, almost sure

to produce others by contact of the pus with neighboring parts.

4. *Period of Incubation*—Has none; sore often appears in forty-eight hours, nearly always by the third day. Always under ten days.

5. *Locality*—Upon the genitals and in the groins; rarely, in the anus; uncommon elsewhere.

6. *Depth*—Generally perforates the entire thickness of the skin or mucous membrane.

7. *Appearance and Shape*—Edges abrupt, sharp, irregular, often undermined, floor whitish, lardaceous or gnawed. The shape is often similar to a chancre, but sometimes it is irregular and jagged.

8. *Induration*—Characteristic, foreign body induration, never present; swelling and engorgement, often producing an elastic hardness which fades away gradually into the surrounding tissues; when the base is pressed between the finger and thumb great pain is produced.

9. *Secretion and Sensibility*—Abundant, and resembling closely that of gonorrhœa in its later stage. Milky, or yellowish. Very tender.

10. *Condition of Lymphatics*—Those of the groin extremely liable to inflammation and suppuration; never indurated as in syphilis, and all appearance of enlargement rapidly subsides after the discharge of the pus, if the inflammation is simple; if virulent,

a chancroid in the groin is the result. When affected, are very tender, and remain so until suppuration or resolution takes place. Those of the penis often subject to simple inflammation, rarely to virulent.

11. *Liability to Second Attack*—Can have it an indefinite number of times; shows a strong tendency to recur at intervals, even without further intercourse and contact, unless great care as to cleanliness is observed after first attack; especially in persons with a long prepuce.

12. *Beginning*—Generally commences as a pustule or an ulcer, advances rapidly, and remains an ulcer throughout.

13. *Obstinacy*—Inclined to eat rapidly; simple chancroid under proper local treatment heals rapidly.

14. *Results if Untreated*—Eats away large portions of tissue, often leaving ugly scars, taking away a portion of the genitals entirely. Heals slowly. General symptoms never follow. Frequently attacked by phagedena.

15. *Transmissibility to Lower Animals*—Quite possible; has been transmitted to a horse, to my own knowledge.

LECTURE XVI.

DIAGNOSIS OF CHANCRE—Continued.

Chancres of the urethra require a little care to form a thorough diagnosis. Yet when we bear in mind all of the diagnostic points just mentioned, they may be as easily diagnosticated as chancres in other localities. For fear of some mistake, it is always best to make a very careful examination in suspicious cases. They are found much oftener in this location than is believed by a great many practitioners, and more frequently than chancroid. Fortunately for diagnosis, they are rarely found deeper in the urethra than the fossa navicularis, while a few cases are recorded in which they were discovered two or three inches from the orifice. One case has come under my own observation within the past two years, in which the chancre extended from the lip on the left side for one and one-quarter inches down the urethra.

They are, in nearly every instance, found at the meatus, and usually involve both lips, encircling the canal, while sometimes only one lip is involved. As before stated, the immediate effects of the application of the poison in some cases is to produce a violent urethritis, resembling in every particular an

aggravated gonorrhœa. If this takes place, it is accompanied by very great pain on micturition, frequent desire to urinate, and generally chordee. After the period of incubation has elapsed, and the chancre is well developed, *all*, or nearly all, pain ceases, and the patient thinks himself suddenly relieved of a severe attack of gonorrhœa. Just at that time he notices a grayish or grayish-yellow ulceration along the margin of one or both lips of the meatus, which seems to be peeping out from the inside. This ulceration, while very superficial, advances rather rapidly, until, in two or three days more, it extends well outside, on one or both lips. There is no means of knowing early, whether this urethritis is due to syphilitic conract or to gonorrhœal poison, from the fact that it is simply a violent inflammation, accompanied, of course, by none of the symptoms of syphilis.

But after the chancre is developed, it possesses the same characteristics that it would in other localities, and can be easily diagnosticated. When an ulcer of this kind is noticed upon one or both lips of the urethra, you can best feel the induration by pressing it gently between the finger and thumb, one placed above, the other below the meatus. It cannot be so well distinguished by pressing from side to side. My observation has been that the specific induration is more uniformly present in chancres of the urethra than in any other location. In fact, I have never seen a ure-

thral chancre but what the induration was well marked. All the other points must be looked for, however, such as superficiality, adherent, smooth, sloping, non-jagged edges, indurated lymphatics in one or both groins, etc.

Chancres of the anus, fingers, lips or general integument are recognized by the appearance of the sore, induration, want of pain, induration of the lymphatics which communicate directly with parts affected. They often commence on the fingers as mere hang nails, which, from their obstinacy, attract attention, and then their true nature is discovered.

In the female, chancres may appear as deep as the neck of the uterus, though this is rare. Whether in this situation or even more anteriorly, they are usually not so well marked by induration as in the male; therefore, the appearance, incubative period, etc., must be carefully looked to.

Syphilitic fever is a term applied to a certain rise in temperature, with more or less acceleration of the pulse, about ten days before the secondary symptoms manifest themselves. If careful tests are made with the thermometer it will be found to exist in the great majority of cases, and perhaps in all. It bears a close resemblance to the fevers of other exanthemata. As in small-pox, measles and scarletina, we have febrile excitement prior to the appearance of the eruption upon the skin, so we have in syphilis.

This fever rapidly subsides immediately after the first general outbreak of the disease, but in some instances it may remain several days afterward, standing at a temperature of about 102°. Syphilitic fever commencing thus, ten days prior to the termination of the average second period of incubation usually remains about the same with slight evening exacerbations, until secondary symptoms are well developed, while, in some cases, it assumes a decidedly remittent nature, being higher some days than others, or present one-half of the day and almost entirely absent the other.

Bumstead and Taylor in their valuable treatise on syphilis, claim—page 489, paragraphs 4 and 5—that syphilitic fever may become again and again developed (after its disappearance) during a course of syphilis, owing to aggravation of some of the existing symptoms. I think, however, that this recurrent fever is not entitled to the special name of *syphilitic*, since, as I take it, is only general febrile excitement that would most likely occur from any sudden irritation, whether the patient had syphilis or not. For example, a lone felon, or an abscess, or a local inflammation excited by an injury, such as the sticking of a thorn, a cut from glass, etc., would cause some febrile reaction in a robust person of sound blood. Then, when a person has chancre, and it is suddenly attacked by phagedena, or severe and painful ulcerations of the tonsils or tongue suddenly spring up as secondary develop-

ments, the slight rise in temperature should not be considered a specific fever.

The symptoms attending the commencement of general syphilis deserve a brief notice here. During the early part of general syphilis there is usually a feeling of lassitude, with pains of more or less severity in the muscles or in the joints, especially at night, loss of appetite, general weakness, pallor from destruction of red blood corpuscles; more or less falling of the hair (alopecia) which may be in patches, or general. There is also a peculiar sensibility of the skin at this time. Anything which touches it seems to irritate or cause it to itch easier than normally. This is a peculiar condition, well marked in nearly every instance, and often lasts for some months. A good test for this hyperæsthesia is, when a part itches, and is suddenly scratched, the sensation of a slight burning pain is produced immediately after the itching is allayed. At this time there is very often an enlargement of the superficial lymphatic glands. This is not the genuine induration, such as exists is the groins when the chancre is on the penis, but seems to be simply an engorgement. This condition may exist in any glands which are located remotely from the primary sore, but it is more frequently met with on the back of the neck, or just behind the ears. It is not generally necessary to look for these in order to form a clear diagnosis, but in doubtful cases their presence will confirm it.

We do not attach the importance to this symptom that is urged by many. This enlargement does not remain a great length of time, and usually terminates in resolution.

Chloro-anæmia, asthenia and cachenia may occur during a course of syphilis, just prior to, or at the termination of some new outbreak of the disease.

The times at which they most likely occur are at the beginning of the secondary stage, or the close of the tertiary.

Chloro-anæmia and asthenia, according to Fournier, belong, exclusively, to women, whom he thinks suffer more from an attack of syphilis than the male.

To the chloro-anæmic woman he ascribes the following symptoms: emaciation, weakness, palpitations and great shortness of breath upon the slightest exertion, a pale, leaden color, tinged with yellow. The appetite may be impaired, but is generally ravenous, accompanied at the same time, by great thirst. This unnatural appetite is termed "boulimie," and the thirst "polydipsia."

He regards the asthenic condition as totally distinct from chloro-anæmia. The symptoms are very much the same as in chloro-anæmia, except the pallor and peculiar color of the skin. Very great lassitude and prostation, low spirits, indigestion, frequent fainting, weak and rapid pulse, either ruddy cheeks, or no change in their appearance at all.

Either of these conditions may exist, or they may

be combined. They differ in severity in different cases, and when properly treated, all their symptoms rapidly disappear.

Syphilitic-cachexia may occur during the primary, secondary, or tertiary stage. That of the primary stage rarely exists unless the lesion takes on phagedena. In such cases the vital powers sink very rapidly; the pulse is weak and rapid, the strength fails suddenly, the temperature rises, there is loss of appetite, a pale sallow appearance, despondency and despair. In addition to the depression naturally attendant upon such a condition of the blood, the patient is worried greatly by the presence of phagedena, fearing the destruction of his entire penis and testicles. If secondary symptoms appear at this time, they are often so slight as to escape notice, and the true nature of the chancre being destroyed or disguised by the existence of phagedena, diagnosis is often difficult. The general ganglionic enlargement, as well as the induration of the glands of the groin is our safest guide in such cases.

The cachexia of secondary syphilis occurs within a few months after the appearance of general manifestations, and is accompanied by all of the symptoms just mentioned, in a more modified form. In tertiary cachexia, the patient is of a pale, earthen hue, not a yellowish white, but resembling somewhat jaundice. The symptoms beyond this are not prominent and well marked, as in secondary ca-

chexia. The patient is emaciated, and generally weakened, unable to take violent exercise, though he can take a moderate amount without inconvenience. The symptoms are all much milder than in the other varieties, but are far more obstinate and enduring.

The *cause* of secondary cachexia is a broken-down or scrofulous condition of the system, and want of proper treatment in the beginning of the disease.

The *cause of the tertiary* is want of prior treatment, consequently the system is broken down by the long course of the disease, or from the effect of extensive tertiary ulcerations.

Cachexia occurs more frequently in the male than in the female, and, unless it has advanced too far, can be cured by proper treatment.

There is not enough known in regard to the effect of syphilis upon acute or chronic diseases to discuss that subject now. If, however, a patient, suffering with the beginning of secondary syphilis, is taken with typhoid fever, the ulceration and sloughing of the tonsils is very great, and the typhoid condition is more alarming, generally resulting in death. It also has an unfavorable influence upon scrofulous or tuberculous conditions.

The *influence of Syphilis* upon *traumatism* in cases which have been untreated, or improperly treated, is well marked.

If a person suffering with the eruption of early

secondary syphilis, receives a wound, a lesion similar to the ones existing at the time of its infliction is the result.

Traumatism of syphilitics in whom the disease has been latent for a long period of time, may cause the wound to assume the character of a syphilitic sore, produce manifestations at some point distant from the wound, or even excite general manifestations. If the patient has been for some weeks upon a proper course of treatment, a wound will heal readily without taking on syphilitic appearances, even if general manifestations exist at the time. It is well, then, not to perform surgical operations which are not urgent, upon patients who are suffering from either of the three stages of syphilis, without first placing them on iodide of potassium and mercury for a few weeks.

Otherwise, the edges of the wound made will not readily unite, and an obstinate syphilitic lesion may result. Traumatic lesions may occur in the tertiary as well as the secondary period, and are "sometimes developed immediately, or in a few days, or it may be several months after the infliction of the wound.

LECTURE XVII.

SYPHILIDES.

GENTLEMEN:—The very many different eruptions of syphilis that may exist upon the skin in different individuals, and at different periods in the same person, are called under the one name of syphilides. There is such a great variety, and the student is so apt to become confused and discouraged if an elaborate description is given, that we will only mention them very briefly, adopting the classification of Dr. E. L. Keyes.

There are, in all, ten different eruptions or syphilides—four belonging to the secondary stage, three to the border line between secondary and tertiary, and three exclusively to the tertiary. Those belonging to the secondary stage are—

1. The erythematous syphilide.
2. The papular syphilide.
3. The pustular syphilide.
4. The pigmentary syphilide.

Those belonging to the border line are—

1. The vesicular syphilide.
2. The squamous syphilide.
3. The tubercular syphilide.

Those belonging exclusively to the tertiary stage are—

1. The pustulo-bulbous (rupia).

2. Pustular syphilide.

3. Gumma, which may exist either as a tumor or ulceration.

We also have among the manifestations of syphilis, affections of the mucous membranes, falling of the hair (alopecia), etc., which will all be duly considered.

Erythematous syphilide is the roseola or measles of syphilis, and appears, usually, in the beginning of *secondary*. Appears as a series of rounded spots, on lower and front part and sides of the thorax, on the abdomen, perhaps on the arms. The tougher portions of the skin, palms of the hands and soles of the feet, usually escape. They are first red, then brown, then coppery. When red, fade under pressure, when coppery, do not. Do not itch, are never confluent. They usually appear in six weeks after chancre, but may be postponed by partial treatment.

Duration.—From three days to eight weeks.

Diagnosis.—Easy, absence of febrile excitement, absence of itching, existence of superficial glandular engorgement, erythema of scalp, chancre, ulceration of tonsils, mucous patches in the mouth.

Treatment.—That of general syphilis.

The papular syphilide may exist at the same time as the erythematous, or it may exist alone. It generally comes on as an early symptom of general syphilis, but may not appear for some months. The characteristic flat papule is a dry elevation enlarging equally in every direction, except in height. It is hard and smooth at first, but afterwards sinks in the center, and sheds its epithelium, its edges rolling back. At this time, when the hand is run over them they feel rough and uneven. They appear in the flanks, on the abdomen, breast, arms and legs, sometimes on the head and face, palm of the hand, and bottom of the foot. They are very prone to appear on the arms and legs, and after being once seen they are not likely to be forgotten. They are at first red, afterwards brown or livid. They pass away gradually, and, for a time, leave a stain, but no scar, unless ulceration has taken place. They are scattered over the body singly, not in groups.

While these are the usual characteristics, there are exceptions. For example: the papules may arrange themselves in circular groups, and run into each other, giving somewhat the appearance of ringworm. They are especially inclined to this where they exist in the folds of the skin, and are kept warm and moist all the time. Under the mammary glands in the female, on the upper and inner side of the thigh, in the male, or on the scrotum, they often become moist on their surfaces,

and may then granulate. They sometimes resemble warty excrescences. Again, they may coalesce and ulcerate without arranging them circularly, or they may simply become moist without extensive ulceration, and their secretion dry into a brownish scab. This form is very frequently seen in the moustache, or on the scalp, or in the eyebrows. Their secretion mats the hair of these localities together, forming a brownish scab at their roots.

The duration of the papular syphilide is from a few weeks to several months. It is liable to many relapses without any apparent cause. Where the integument is thick, and the papules coalesce, they are very obstinate. This is especially the case on the palms and soles. Those on the forehead are very obstinate also.

The diagnosis is usually easy when they appear early, as it is not generally difficult to ascertain the fact that a chancre has existed previously. When they occur in later months or years, and only a few scattered papules, then nothing but treatment will certainly determine their nature. If they disappear rapidly under syphilitic treatment, viz., iodine and mercury, their nature is clear; if not, they must be considered as non-syphilitic, and of no special importance. They resemble some forms of lichen very strongly. The absence of other symptoms of syphilis, and the tendency of the papules of lichen to arrange themselves in straight rows, with healthy

skin between them, and their very great difference in size renders their nature plain.

The *treatment* of the papular syphilide, of course, is that of secondary syphilis. In this form of syphilide, as well as in others, local treatment is of great benefit. One of the following ointments is very beneficial, and causes the papules to disappear rapidly:

R.
Oxide of Zinc, gr. xx to xl.
Vaseline or Simple Cerate, ℥ i.
Mix.
Apply at night.

R.
White Precipitate (Amm. Hydrarg.) gr. xv to xxx.
Vaseline, ℥ i.
Ol. Bergamot, gtts. x.
Mix.
Apply at night.

The pustular syphilide exists in two varieties—the small superficial, and the deep; both, however, confined to the skin.

The small superficial pustule may appear as one of the early manifestations, but usually does not exist under six months after the appearance of chancre. It is generally scattered all over the body from the crown of the head to the soles of the feet, not showing any special preference for one part over another, the neck, perhaps, being less liable than any other part. They vary greatly in size,

some being very large, others small, require from two to three weeks to fully develop. They then break, the enclosed fluid escapes, then scab or crust brown, and heal under the crust. Instead of being scattered singly, they may group and run together, forming a similar but larger scab or crust. When the scabs fall off they leave the skin slightly thickened, and of a deep purple, or purplish-brown color, which finally disappears, leaving a clear, smooth, white scar, which may be depressed, and bordered or not, by a slight discoloration. These scars finally disappear, or so nearly as to be imperceptible without close inspection.

The *diagnosis* of small, superficial, pustular syphilide is made out easily from the syphilitic history of the lesion, and the existence, at the time, of other specific lesions.

The deep pustular or ecthymatous syphilide might be called the deep-superficial syphilide, from the fact that while it is deeper than the ones just described, it nevertheless only involves the skin, not extending any deeper. This variety usually appears as late as the end of the second year, but sometimes presents itself earlier. When it appears early, it is an indication that the pus-forming tendencies of the individual are great, and a severe form of syphilis may be expected. This variety begins as an infiltration of a small portion of skin, with a pustule developing on the top, or of a larger portion with several pustules upon it.

They develop very slowly, finally scab, producing very little, if any, pain. A small ulcer exists under the scab for some time after it has formed. The scar left is of a deep purple color, remains a long time, often pitted, indicating hair follicles which have suppurated, are sometimes elevated and much thickened.

The *diagnosis* is not hard to make out, unless considerable syphilitic fever exists just prior to its appearance. In such cases it may be mistaken for small-pox, and treated as such. Other symptoms of syphilis, the slow development of the pustules, absence of the intense pain in the back and bones, effect of specific treatment, etc., will enable you to differentiate them. There is a species of ecthyma which may exist from cachexia, called *cachectic ecthyma*, that is identical in appearance with the syphilitic. The history of the case, together with the effects of iodine and mercury, will determine its nature.

The *treatment* is that of secondary syphilis, with frequent hot water baths, or sulphur baths.

The pigmentary syphilide is a very peculiar condition of the skin, and simply indicates another one of the many mysterious ways in which syphilis may manifest itself. When it is first noticed, the appearance is, that portions of the skin have lost their coloring matter entirely, so that the patient has a spotted appearance, the spots being white, with intervening portions of natural skin. They most

generally appear on the neck, on the sides or in front, and on the breast. They are sometimes beautifully marked on the palms of the hands.

According to Dr. Fox, (skin diseases) these spots exist first as syphilitic macules or papules, which are at first red, then discolored by pigmentation, as is usual. The peculiarity is that after the disappearance of the erythematous or papular spots, the pigment matter of the spot is entirely absorbed, leaving that portion of the skin in an albinic condition, while the pigment is deposited in excess in the edges. It seems that the pigment matter is pushed from the centre to the circumference of the spot. In the negro, this condition is very striking, portions of the skin being perfectly white, while the rest is black. I have observed within the last year one very beautiful case of this form of syphilis on the skin of the penis, in a negro man. His penis is so white in spots that the capillaries are plainly visible, while in other parts he is as black as night. Once seen, this disease is not easily mistaken for any other, for there is no other like it. This syphilide usually appears as a late secondary symptom, and the patches are very irregular.

The vesicular syphilide is very rare, and appears as a late secondary manifestation, usually during the second year. The vesicles, generally small and pointed, are scattered over the trunk and extremities (rarely, if ever, on the face) or clustered into circular or semi-circular groups, upon a base of

syphilitic color. They are usually surrounded by an areola, which is at first bluish, and afterwards brown. The vesicular syphilides are very slow in growth, and are prone to appear in crops, one set coming on as another is going off. Vesicles may appear as early as five or six months, but at this time they rapidly become pustular, discharge their matter, and crust. The vesicles of late syphilis generally dry up and scale off, or, exceptionally, they may become purulent and form brown scabs.

The *diagnosis* is determined by the history of the case, other syphilitic manifestations, the absence of a tendency to become confluent, and the absence of itching.

No *treatment* is necessary, except constitutional.

The squamous syphilide is, with the exception of that on the palms and soles, joined either with a tubercle or a papule. The tuberculo-squamous belongs to the tertiary stage, and consequently will not be considered now. The papulo-squamous syphilide appears towards the close of the first year, as a rule, while it may come several years after the existence of primary, secondary or tertiary syphilis. After a patient has been treated for syphilis he may be without a symptom for several years, and then an elevated scaly patch may appear upon some part of the body. The skin around it is more or less bluish or brown, and decidedly papular. These scaly patches vary from the size of a pin's head to a place several inches in area, and as they shed off,

others take their place, until finally they disappear, leaving no scars behind. They very often resemble herpes circinatus (ring-worm), especially on the upper and inner side of the thighs and scrotum. You will see very many cases where the patient thinks he has a large ring-worm extending from the thigh over on the scrotum, which are but evidences of the existence of syphilis at some previous time. They cannot long be mistaken for ring-worm, since in syphilis they do not grow by enlarging from the centre, while the ring-worm does.

The scaly syphilide that appears upon the *palms of the hands* and *soles of the feet* is very marked, being generally rounded, with a yellowish or yellowish-red area. They enlarge from the centre outwards, scale off the epithelium, and run into each other, producing very large patches. The natural grooves in the palms are sometimes scaled, making long fissures or cracks which extend down to the true skin, and often bleed. Any rough use of the palms, such as plowing, using tools, rowing, carrying a walking-cane, etc., will irritate and increase the variety of syphilide.

The diagnosis is sometimes difficult, but can be determined by the following special characteristics. They exist upon the palms and soles alone, without other parts of the body being affected, itch but little, are more rounded than other skin troubles (eczema).

Their *treatment*, if occurring years after a thorough course of treatment to secondary or tertiary syphilis, should be entirely local, there being no need of alarm as to the condition of the blood.

The tubercular syphilide, like others, may be generally distributed, or it may exist in groups and patches. The general distribution of this syphilide is very rarely seen, and occurs during the latter part of the first year, while the grouped variety is not uncommon, and is seen during the second year, or perhaps, one or two patches may occur years after the existence of the chancre, and when all symptoms have been absent for a long period of time. This is one of the lesions, that, strictly speaking, belongs to the tertiary stage, but occurring often on the border line of the secondary it becomes one of the three which we classed as intermediary syphilides. It is a genuine gummy infiltration of the deeper parts of the skin, not, however, involving the areolar tissue, as does the true tertiary gumma. When general, it exists all over the body in patches, clusters, or parts of circles. Each tubercle is an elevation of the skin, surmounted by a scale or a pustule. The elevation on which rests the scale or pustule contains no fluid, but is solid and gummy. The scar left by their healing, is at first dark-blue, afterwards becomes white, shiny and depressed.

The diagnosis is not at all difficult, if you understand what to expect. The appearance alone will

indicate its nature, but previous syphilitic history and effects of treatment will place it beyond all doubt.

The tuberculo-squamous being a seeming admixture of the two will now be briefly considered. The appearance of this syphilide is portions of thickened, livid skin, surmounted by scales. The thickening is sometimes very slight, while the scales are easily recognized. Rounded, white, sunken and smooth scars will be seen on the skin among the scaly patches. The patches are increased in size by new tubercules appearing around their margin. Several tubercules sometimes run together in a ring form, leaving the skin in the center unaffected, and again large patches ulcerate, forming ugly irregular ulcers. They usually appear upon the face.

The diagnosis is made out from previous history, non-contracted scars, and effects of treatment.

The treatment of both the tubercular and the tuberculo-squamous syphilides is large doses of iodide of potassium internally, and mercurial ointment by inunction.

Tertiary Syphilides.—As before mentioned, there are only three varieties of tertiary manifestations upon the skin, namely: the pustulo-bulbous or rupia, the purely pustular and the gumma.

Rupia first appears either as a flat pustule, or a pointed, bulging one. In either case, the matter is soon discharged, and is generally stained with

blood. This matter dries into a yellow or brownish scab, which covers the part, and ulceration goes on beneath, while a ring of pustules is formed along the circumference of this scab. They, in their turn, discharge matter which forms by drying a deep brown or greenish scab, which joins in common with the original scab to cover the ulceration that is going on underneath. This process continues until there exists a large ulcer covered by a rough, brownish-green ridged scab, which is simply attached to its edges, and not adhered to its center, much like the crystal of a watch. The center being elevated by the amount of matter beneath, if pressed upon will cave in, and cause matter to exude from the edges. When the scab is removed, a dark or blackish mushy ulcer, with smooth and well defined edges is seen. These ulcers, under treatment, generally heal beneath the scab, which finally falls off, leaving a dark-blue, drawn and ridged scar, with brown edges. Afterwards these scars generally become white and smooth, but in some cases remain blue, or bluish-brown, for life. The occurrence of this syphilide is most generally upon the anus and legs, and indicates a want of vitality in the blood, while the patient may express himself as feeling well.

The purely pustular syphilide so closely resembles rupia that it is hardly necessary to tax your minds with its consideration. We have two varieties of pustular syphilide, one a single pustule, with a

gummy, thickened portion of skin beneath; the other, a number of small pustules appearing almost simultaneously on a red spot.

In the first variety the pustule soon discharges a quantity of matter which forms a green or greenish-black scab (resembling rupia very closely), while ulceration goes on beneath. This scab seems to be cut loose from the edges of the sore, and fit down under them, therefore, the circumference of the scab is often lower than the edges of the ulcer. Several ulcers may gradually unite, forming a large, irregular one, which often resembles serpigenous phagedena, by healing at one side, while it advances on the other. The grouped pustulous patches do not give out a large amount of purulent matter, neither is it very thick, consequently it does not form the characteristic green scab of the single (ecthymatous) variety. Large tertiary ulcerations may spring from either rupia or the pustular syphilide.

A favorite place for the pustular syphilide, producing large and troublesome ulcers, is on the legs.

The diagnosis is easy, by the same means as other syphilides, namely, syphilitic history, not resembling anything else and effects of treatment.

The treatment should be iodide of potassium in very large doses, and blue ointment by inunction. Local treatment, at the same time, is very beneficial. Dusting with calomel, oxide of zinc, iodiform, etc., produce splendid results.

The gummous syphilide is the last of the list of manifestations of syphilis upon the integument, and is sometimes found as a diffused thickening of a large patch of skin, which becomes reddened and bluish afterwards, and as a rule, soon ulcerates, remains obstinate, or advances in one direction and heals in another. The ulcer may cover a large surface of skin, but does not eat deeply. This variety is very rare.

Again, and usually the gummous syphilide is a congregation of peculiar cells (known as gummous) underneath the skin, which at first feels like a small shot or pea. This little lump increases in size more or less, and may then remain stationary for months or years, and sometimes disappears even without treatment. They frequently, and I may say, usually, ulcerate. When this takes place, the skin above the gummy tumor becomes reddened, and then bluish, gradually breaks down, and a thick, ropy, greenish-yellow substance, tinged with blood, is discharged, as the contents of the tumor. Deep, ugly and obstinate ulcers remain after the opening of the tumor, and when healed, invariably leave a scar, which after months have elapsed becomes less distinct, but rarely, if ever, disappears entirely. Gummy tumors, before ulceration, can be moved slightly over the tissues beneath them, are loosely attached to the skin, and are perfectly painless, even if great pressure is applied. These gummous

deposits under the periosteum produce pain, but are not sensitive themselves.

Gummy deposits are a very destructive form of syphilis, being sure to destroy any tissue which they implicate, and they may occur in any part of the body. The muscles, the ligaments, the bones, the skin, the mucous and serous membranes, the liver, the lungs, the heart, the kidneys, the spleen, the pancreas, the bowels, the bladder, the uterus, the mouth, the eye, the throat, the nose, the blood-vessels, the lymphatics, the brain and spinal cord, the distributary nerves—all have felt the destructive touch of the demon—*gumma*.

The treatment is iodide of potassium combined with iodides of sodium, ammonium, calcium and magnesium, afterwards inunctions of mercurial ointment.

I have now, in as clear and practical a manner as I am capable, placed before you the most important characteristics of the skin manifestations, avoiding that technical minutiæ with which books on this subject are too much crowded. Leading the student's mind into the microscopic appearance of the different syphilides, the minute changes which take place in each, and overwhelming his already beclouded mind by an array of technicalities belonging alone to dermatology, does much to impress him with the capabilities of the teacher, but leaves him with a very vague knowledge of the dis-

ease. You have had everything necessary (perhaps too much) for all practical purposes, and those who desire to study skin diseases closely and minutely had best do it through the medium of the work of the eminent dermatologist, Fox, than in a work on syphilis.

LECTURE XVIII.

MANIFESTATIONS UPON MUCOUS MEMBRANES.

GENTLEMEN:—As you well know the mucous membranes of the body are but the internal skin, the one being the continuation of the other, therefore, the manifestations of syphilis upon them are very similar to the syphilides, only they are slightly changed in appearance by being kept constantly warm and moist. The appearance of the papular syphilide, for example, when in a fold of the skin (under the mammæ) is the same as the characteristic mucous patch. There are only four different kinds of mucous membrane syphilitic lesions, viz.:

Erythematous, which result in little abrasions or raw erosions and superficial ulcers, *mucous patches*, *scaly patches*, and *gummy ulcerations*.

In reality there is no necessity for dividing them this much, as one is only a later stage of the other —the mucous patch and gummy ulceration being sufficient.

The *Erythematous* syphilide, as will be remembered, is the measles of syphilis; then as measles (roseola) appears in the throat and nasal passages

at the same time it does upon the skin, so does syphilitic roseola.

Erythema, therefore, occurs as a rule very early in the attack, while it may occur at almost any time during a course of syphilis. It consists of a diffused redness of the entire throat, often extending into the nares, eustachian tube, pharynx and larynx, with more or less enlargement of the tonsils. It is in reality the same eruption that appears upon the skin in the erythematous syphilide. This inflammation may subside at once, or some of the little patches may become raw, and ulcerate superficially.

The diagnosis is made out by the history of the case.

Treatment is iodide of potassium and mercury internally, and local applications.

The mucous patch is simply the papular syphilide on a mucous membrane. Papules of syphilis, when subjected to constant heat and moisture, become softened and raw, whether on the skin or elsewhere. Mucous membranes constantly furnish these conditions, so instead of being dry, as on the skin, they are moist. The genuine mucous patch is found only in persons suffering with syphilis, and belongs strictly to the secondary stage. If patches occur during the early part of the second stage, they more nearly resemble superficial ulcerations than mucous patches. If, on the other hand, they occur in the late secondary or tertiary stage, they

are more properly scaly patches, nearer the squamous than the tubercular syphilide. The true mucous patch is a more or less round, slightly raised spot, of a yellowish-white color, at first, occasionally red with granulations) and skimmed over with a pus-like secretion. Afterwards they are livid and shining. Sometimes several patches may run together, making a large, irregular ulcer.

They are found on the inner side of the lips, often appearing like a small burnt slit along the junction of the lips and gums, which, when the lip is strongly drawn forward, it is seen to be a rounded ulcer. They also appear upon the inner surfaces of the cheeks, on the tongue, on the tonsils, in the pharynx, in the larynx and trachæ. When they are first found they are not painful, but after becoming inflamed, there is nothing that can produce more annoyance, being exceedingly painful. They sometimes produce ulceration of the tonsils, which, very frequently, extend from its upper to its lower border, seeming to bury themselves in the tonsil, often almost hid from view, but when the tongue is firmly depressed and the patient slightly gags, it is plainly seen. The appearance, under such circumstances, is, that the tonsil is split perpendicularly, and a yellow or grayish ulcer occupies the fissure, a very characteristic lesion.

The diagnosis is easy, as they are found only in syphilitics. Nothing else can be mistaken for them.

Local treatment is of the utmost importance in this as in all other mouth lesions, in addition to constitutional.

The scaly patch is but an advanced stage of the one just mentioned, since the mucous patch often becomes scaly later on. They are flat, irregular patches, white in the centre, fading into a blue towards the circumference, surrounded by a more or less reddened border, and usually found at the angles of the mouth and on the tongue. They do not incline to ulceration, but are very painful, and if accidentally rubbed (with a tooth brush or in eating) they bleed. They are found during the second year of syphilis, rarely later.

The diagnosis is formed by the history of the cases, since there are other diseases of the mouth which resemble them closely. They are generally induced and aggravated by local irritants, such as smoking, chewing, dirty teeth, rough edges of decayed teeth, etc.

The treatment should be local in addition to internal. Nothing prevents and relieves them so much as keeping the teeth perfectly clean.

The gummatous lesions represent three different types of ulceration, which appear slightly different, but are in reality the same thing, viz., gummous ulceration.

The deep brawny ulcer, which may occur during any period of secondary or tertiary syphilis. It is the ulceration just now alluded to as splitting the

tonsil perpendicularly. Its edges are more or less hardened, and it is very painful, producing (upon swallowing) a stiffness as though some foreign body was imbedded in the throat. It does not eat rapidly, but is very obstinate, often remaining stationary for weeks even under the best treatment.

The Serpigenous ulcer is a late lesion of syphilis, and is a well-marked gummy infiltration, which afterward ulcerate. This variety of ulceration seeks especially the soft palate; the uvula and tonsils being more frequently involved than any other part. The pharynx and larynx are sometimes affected, but the tongue, lips and cheeks usually escape. It may remain stationary, or creep very slowly for months, and then suddenly increase rapidly, eating off the uvula and inner side of the tonsils in a very few days. They are not usually very painful. They may eat rapidly from the beginning without any prior existence. They are always noticed extending from before backwards, taking off one side of the uvula and the tonsil, and do not split the tonsil like the brawny ulcer just described. The uvula is sometimes eaten so nearly off near its base, that it becomes necessary to cut it out entirely to prevent its coming loose during sleep, and lodging in the larynx or trachea.

This form of ulcer occurring, the larynx demands the promptest and most skillful attention, or the voice may be entirely lost.

The diagnosis is easy, as there is nothing else like it.

The treatment must be active and heroic. Stop the use of tobacco in every form, the swallowing of crusty bread, and administer iodide of potassium in large doses, combined with the other iodides.

We come now to consider a lesion which does not belong exclusively to mucous membranes, but originates in the areola tissue beneath it, and afterwards by ulcerative action, involves not only the membranes, but any other tissue that may come in its way.

The gummatous tumor and ulcer of the mouth begins as a gummy infiltration of greater or less size underneath the mucous membrane—is not sensitive to touch, and very little painful. They sometimes grow very slowly, producing a slight swelling, but oftener, they advance rapidly from the first, pushing up against the mucous membrane, which becomes more or less œdematous, softens rapidly, and an ulcer is formed with sharp, well defined edges, and a pale-yellowish or gray floor. There is no tissue which offers any resistance to the advance of these ulcers. Everything infiltrated by the gummy material, whether membrane, areolar, tissue, cartilage, or bone, is alike destroyed, and often to an alarming extent. It is this form of ulceration that destroys large portions of the bones of the nose and hard palate, so that permanent holes are made from the mouth, through the roof,

into the nose, and from one side of the nose through the septum into the other, and so on.

This variety of ulceration is very alarming, often carrying away in a few days large portions of tissue. When such ulcers exist in the larynx, destruction may go on to such an extent as to cause permanent loss of the voice, or leave the patient to whisper the rest of his days. It is still claimed by some eminent physicians that other diseases than syphilis may cause these extensive and destructive ulcerations; yet I wish to impress upon you that so far as my experience goes such is not the case; they are never found only as the result of syphilis either acquired or inherited. So fully am I convinced of this fact that I always prescribe anti-tertiary remedies, without inquiring into the syphilitic history of the case.

I have in my mind a case recently observed, the history of which is as follows: Mrs. ——, aged thirty years, married, called to consult me in regard to closure of the left lachrymal duct, which had existed for several months. During the examination her mouth was looked into, she removing a set of artificial teeth. On the roof of the mouth, just behind the gums, in the median line, a slit through the bones into the nose was observed. Further back was a much larger opening, measuring about one-third of an inch across and a half inch in length. Upon further examination it was noticed that the cartilaginous septum of the nose was almost

entirely destroyed, and though all was healed, no ulceration being present, the odor of the breath was foul beyond expression. The position of the family was such that I did not venture to ask if she ever had syphilis. I could not learn much of the history, save that the ulceration came on some years after marriage, and seemed to defy all treatment until a priest, who was visiting the family, gave her a prescription which cured it. I was for a time puzzled, thinking, perhaps, it might be due to some other cause than syphilis. But upon asking as to the ingredients of the prescription, which the priest gave, she informed me that it contained large quantities of iodide of potassium, asserting at the same time, that it was the only medicine that ever did her any good, although she had been treated by several physicians. I then felt certain that it owed its existence to syphilis alone. There is one important point in connection with this, namely; the attending physicians had made an error in diagnosis, and had, therefore, caused the poor woman to be severely affected for life, by want of proper and timely treatment. She cannot speak plainly, unless the plate is in her mouth, and in eating, fluids occasionally slip up behind it into the nose.

The diagnosis of this variety of ulceration is easy, there being no other disease like it.

The prognosis is unfavorable, since deep excavations are often left, producing serious inconvenience,

and sometimes they are incurable, having advanced so far before their true nature is comprehended.

The treatment is the iodides in unlimited quantities, until ulcerations are healed; then mercury.

In addition to the manifestations upon the skin and mucous membranes, syphilis may affect any tissue in the entire body, the manifestations in other tissues, being, for the most part, tertiary. For example, we have syphilis manifesting itself in the fingers, toes, hair, tendons, muscles, bones, cartilages, nervous system, vascular system, stomach, bowels, and, in short, every tissue in the body. It is hardly necessary to mention minutely, every manifestation that syphilis is capable of giving, since the history of the case and anti-syphilitic treatment will determine their nature. It is such an insidious monster, being liable, in its later stages, to simulate so many other diseases, that my rule is, in all obstinate and mysterious cases, to try iodide of potassium in large doses as a means of diagnosis, unless it is positively contra-indicated.

Just here, a case in point, occurs. A gentleman, about forty years of age, policeman, consulted me, two years since, in regard to a permanent flexion of the ring and little fingers of the right hand, rendering him unable to attend to his daily duties. The flexor tendons of those fingers were so much drawn that it was impossible to straighten the fingers, even by force. He had been under the advice of a

prominent surgeon, of this city, who diagnosed it to be a case of permanent contraction, and informed the patient that the only relief would be experienced in cutting the tendons. Finding no traumatic cause for the contraction, noticing at the same time a tuberulo-squamous syphilide upon the face, I asked him to bare his arm. Upon close examination, a gummous tumor was found, among the internal fibres of the flexor sublimis digitorum muscle. The secret was now revealed. The man had a chancre four years before, had taken mercury only a short time, a tumor had slowly and painfully formed, pressing upon the muscle sufficiently to keep it constantly contracted, and the drawn fingers were the result. I informed him that no surgical operation was necessary, and placed him upon a combination of iodides, which speedily removed the tumor, the muscle relaxed, and the hand was as useful as ever. Afterwards he was placed upon mercury, combined with iodide of potassium, and has since remained well.

LECTURE XIX.

SYPHILIS OF SPECIAL ORGANS.]

GENTLEMEN—We will now briefly consider a few of the more common lesions specially, namely: dropping of the hairs (alopecia), syphilis of the larynx, night pains in the bones (*osteocopic pains*) nodes, caries, gummy tumor of the tongue, and iritis.

Dropping of the hair frequently occurs during the early part of secondary syphilis, and is due to want of nutrition, and a lack of strength in the hair bulb. The hairs of the body die and fall out, usually in large patches, sometimes leaving parts of the head entirely bald. The eyebrows are very frequently lost entirely, also the whiskers, moustache, and hairs about the genitals. In short, all the hairs of the body are likely to die and fall away. Patients generally become very much alarmed at the loss of hair, considering it an indication of the malignancy of the attack. I have seen it continue to drop out rapidly while patients were thoroughly under the influence of mercury, and felt well in every respect. The reason for this is plain; the hair had all died before treatment was commenced, and therefore must fall out, as no treatment could restore its life, though it would cause a new growth to spring up

equal to the first. It is, therefore not an indication that the blood is not acted upon properly.

The treatment should be such as will encourage the rapid growth of new hair, placing the scalp in as healthy a condition as possible, at the same time, of course, using mercury internally. The following are among the best remedies for alopecia.

℞.
Tr. Cantharidis, ʒ iij.
Tr. Capsici, ʒ iv.
Ol. Oil, ʒ ij.
Spts. Lavender, ℥ viij.
M.
Apply once a day.

℞.
Bay Rum, ℥ iv.
Tr. Cantharidis, ʒ iss.
Cologne Water, ℥ viij.
Ol. Bergamot, gtts. xxv.
M.

℞.
Crude Petroleum, ℥ iv.
Aqua Calcis (lime water), ℥ iv.
Ol. Bergamot, ʒ ijss.
Ol. Citrinella, ʒ ij.
M.
Apply well.

℞.
Borate Sodæ (Borax) ℥ i.
Carbon. Amm. ℥ i.
Rain Water, ℥ xvi.
M.

℞. Alcohol,
Bay Rum,
Glycerine, *aa.* ℥ iv.
Castor Oil,
Ol. Oil, *aa.* ℥ i.
Ol. Camph. gtts. xx.
Carb. Amm. ℥ ss.
Ol. Bergamot,
Ol. Lemon, *aa.* ʒ ss.
Tr. Canthar. ʒ ij.
Citrinella, ʒ iss.
M.

This is one of the best hair tonics.

In using any of these remedies, the scalp should be well rubbed with a stiff brush before they are applied. The electric brush has proven very beneficial in some cases.

The following has been used by some patients with great satisfaction. It may also be applied to the eyebrows or the face.

Pulv. Tannin, ʒ ss.
Carbolic Acid, gtts. xxx.
Bay Rum, ℥ vi.
Glycerine, ℥ij.
Tr. Cantharides, ʒ i.
M.
Apply three or four times a week.

The larynx is often affected early in the secondary period by erythematous inflammation, or mucous patches, already described. Sometimes mucous patches exist upon the vocal chords, or on the epiglottis at the base of the tongue. In such cases the patient has spells of violent coughing, with but little, if any, expectoration, the sensation being the same as that produced by a small crumb of bread in the throat. These lesions leave no scars.

Local treatment, in the form of mercurial or iodine inhalations, is very beneficial, in addition to mercury internally.

There are two forms of tertiary affections, how-

ever, of this organ, which are very serious in their character, and demand immediate attention.

In one, there is a hyperplasia of the connective tissue, which binds down the tissues inside the larynx, renders the vocal chords stiff and adherent, and sometimes may produce death by suffocation.

The *diagnosis* is clear from the syphilitic history, with want of a thorough course of treatment, and the presence of hoarseness, which sometimes lasts for many months, gradually growing worse until the patient can barely whisper; and slight pain on pressure. If allowed to continue in this condition, he becomes emaciated, nervous, much weakened, and longs for death to relieve his sufferings.

The *treatment* is iodide of potassium in large doses, combined with mercury, either internally or by inunction. If this treatment is commenced soon after the trouble begins, it will benefit promptly, but after the disease has existed for weeks or months, it must be continued long before relief is expected. If suffocation threatens, it is often necessary to perform tracheotomy, and insert a silver tube, which must be worn until the disease is thoroughly cured. Patients sometimes wear a tube of this kind for many months without serious inconvenience. Dr. E. L. Keyes reports a case in which it was worn two years, at the end of which time the patient was entirely cured. In such cases, you should never allow a person to die without having the benefit of the operation.

The other affection of the larynx is the *gummatous ulceration.* In such cases, the tissues of the organ are often entirely destroyed; the vocal chords may be destroyed, or some of the cartilages may undergo decay, and exfoliate. These ulcerations, upon healing, may cause such extensive cicatricial contraction as to almost entirely obliterate the cavity of the larynx, leaving the patient with very little, if any, voice.

Previous history, together with extreme hoarseness, tenderness on pressure, and the laryngoscope, will make out the diagnosis.

The *treatment* is unlimited doses of iodide of potassium combined with the other iodides. They must be pushed as fast as the stomach will bear, since an important organ is in danger. If commenced early, the effect of this treatment is often magical, the symptoms disappearing rapidly. If, however, scars have formed, the ulceration may be cured, but the cicatrices cannot be removed; so the voice will still be seriously impaired. Tracheotomy may be necessary in this affection, as in hyperplasia. The trachea and bronchial tubes are subject to same lesions as the larynx, but not so liable. Similar morbid changes may affect the pharynx œsophagus, stomach and intestines.

Pains in the bones at night (osteocopic pains), usually occur during the secondary period, but may exist later. After the patient has retired, the pain becomes worse, and is of a boring,

splitting, or aching character. He feels perfectly well during the day, but as darkness approaches, an uneasy, tired sensation is felt, apparently in the muscles, which increases as night comes on, seeming to "settle in the bones." He lies down in order to get relief, but, instead, he finds, as he covers himself snugly and warmly on his couch, the pain is increased, having now become an aching, splitting, throbbing character; the bones aching as would a tooth. After suffering until early morn, he falls asleep, awaking to find himself perfectly well again. As the evening approaches, however, the same sensation is felt, and so he goes on suffering gradually, more and more every night. The pains usually occur in the superficial bones, clavicle, scapula, cervical vertebra, sternum, ilium, tibia and cranial-bones.

The diagnosis is easy, as there is no other disease known, which produces osteocopic pains.

The treatment should be according to the stage of the disease in which they occur; if secondary, mercury and small doses of iodide of potassium; if tertiary, large doses of the iodides.

The node is an inflamation of the periosteum and bone, resulting, generally, in the formation of new bone. The periosteum becomes congested, then a mass of new cells are formed in direct connection with the bone. These new formations cause the periosteum to bulge a little, the elevation sloping off gradually into the surrounding tissues. These

lumps or nodes are soft and exceedingly tender at first, but later, harden, and lose their sensitiveness to a great extent. If they are situated on the tibia, and the patient stands or walks a great deal, there is considerable aching in them, which is increased at night. Nodes usually terminate by resolution, being gradually absorbed, and leaving no trace behind, or only a slight depression on the bone, but they sometimes soften, the skin inflames, breaks down, and a syphilitic ulceration of the bone is the result.

The diagnosis is cleared up by the syphilitic history and night pains. They occur as a tertiary lesion exclusively.

The treatment should be large does of iodide of potassium, continued some time after the nodes are gone.

Dry caries may also occur as a result of syphilis. It belongs exclusively to the cranial bones, and may be recognized by the following symptoms: it comes on late in syphilis, and produces a peculiar worm-eaten condition of the bones of the head (especially parietal and frontal), which may be readily felt, and recognized through the skin. The first appearance is a painful spot without any swelling.

The treatment is large doses of iodides continued long.

The gummy tumor and ulceration of the tongue so closely resemble epithelioma of the tongue, as to require care in diagnosis. The following is a table

of the differential points taken from the work of Dr. E. L. Keyes:

ULCERATED EPITHELIOMA OF THE TONGUE.

1. Occurs generally late in life.
2. Possible cancerous antecedents.
3. The ulcer sometimes occupies the seat of former icthyosis of the tongue.
4. Commences superficially and ulcerates.
5. Lesion is unique.
6. Occurs on any part of the tongue.
7. Edges everted, tuberculated, irregular, bleeding easily when touched, or spontaneously.
8. Discharge free, ichorous, putrid.
9. Pain spontaneous, shooting toward ear. (Fournier).
10. Tongue ribid, painful, functionating badly.
11. Microscopic characters those of epithelioma.
12. Lymphatic glands become involved.
13. Antisyphilitic treatment of no value, possibly harmful.
14. Termination: death by cachexia and inanition.
15. Returns if cut out.

ULCERATED GUMMA OF THE TONGUE.

1. Occurs at any age.
2. Syphilitic history.
3. Nothing of the sort.
4. Commences deep in the tissues, feeling like a bullet beneath the mucous membrane. It softens centrally, and on reaching the surface discloses a deep ulcer.
5. Sometimes multiple and bilateral.
6. Found only on the back and sides of the tongue, never beneath.
7. Edges abrupt, uneven, hard, adherent, covered with slough, not tuberculated, not bleeding easily.
8. Discharge slight.
9. Ulcer usually painless.
10. Functional troubles generally slight.
11. Microscopic characters those of a degenerating gumma.
12. Lymphatic glands generally remain exempt.
13. Antisyphilitic treatment generally promptly beneficial.
14. Death does not occur from this cause alone. Spontaneous cure without medicine possible.
15. Does not return if cut out entirely.

The treatment is the iodides in large doses.

Syphilitic iritis has all the symptoms of ordinary acute inflammation of the iris, dull pain, congestion, slight redness, abundant flow of tears, pain in the supra-orbital region, which is increased at night. These attacks are very liable to recur, and may result in adhesions to the lens, which permanently prevent dilatation of the iris.

Gumma of the iris occasionally occurs as a small yellow or yellowish-red papule, growing from the iris, sometimes one, sometimes a little bunch. They may fill the anterior chamber of the eye, and bulge the cornea forward.

Bumstead and Taylor allude to a suppurative form of iritis, which may result also from syphilis. Iritis occurs, usually, early in the secondary stage, and indicates a bad form of syphilis, while gummy tumor of the iris comes on as a late secondary or tertiary lesion.

The diagnosis is easily formed.

The treatment of iritis is mercury, together with general blood tonics, such as iron, cod-liver oil, hydroleine, etc. Locally, use solutions of atropia regularly, and keep the eye well shaded from the light. Gummy iris will yield readily to large doses of the iodides.

Serious syphilitic affections may occur also in the nervous system, producing symptoms according to their location. The brain, the spinal cord, the sympathetic system, or any of the nerves leading from them may be involved.

HEREDITARY SYPHILIS.

Hereditary or inherited syphilis may proceed from either a syphilitic father or mother. When the father alone is affected, the offspring is not necessarily syphilitic, though it sometimes is; but when active syphilis is going on in the mother at the time of conception, the child is certain to be syphilitic. Often the disease commences so early as to cause death of the fœtus before maturity, either from its direct effects upon vital organs, or by destroying the placenta. In such cases, the mother usually remains quite well, or only a little sickened, and at the expiration of the period of gestation, natural labor comes on, and she is delivered of a dead fœtus. If it is discovered that a fœtus, after being fully formed, is dead, by cessation of its movements, stoppage of the heart beat, etc., it is not necessary to bring on labor prematurely, since nature manages these cases better than physicians. When a fœtus has been dead in utero for some time it becomes softened, and large watery blisters (bullæ) are found all over the body. The "*waters*" are thickened, darker, and sometimes emit a very unpleasant odor. In such cases, the epiphyses will be found to be carious, and the viscera will show gummy tumors, or gummatous ulceration. The gummatous ulceration involving the bone, which has been described in connection with acquired syphilis, may also be present.

These conditions are more or less prominent in all cases of inherited syphilis. Then, if a still-born babe is found to have carious bones, or gummatous ulceration, it is certain that it died from syphilis. These bone affections may exist in children who are born alive, and present special symptoms. The ends of the long bones are most frequently affected, but any one in the body may be. The ends of the long bones become thickened, may involve the skin, which becomes adhered, inflames, finally gives way, and suppuration results. Sometimes there is considerable debris of the ulcerated and decaying bone passing away every day. The epiphysis may be entirely separated from the end of the shaft of a long bone, and at this point bony elevations or points may occur, which can be easily felt.

The treatment of such cases should be mercury, and iodide of potassium. The mercury should be administered by inunction or vapor bath, and the iodide given internally, commencing with small doses largely diluted, and gradually increased as the stomach will bear it, until the symptoms yield.

The syrup of the iodide of iron often has a happy influence, in these cases, given in five to thirty drop doses three times daily, after feeding. If the child is very young, great care must be taken not to begin with too large a dose of iodine in any form.

I will now briefly mention the symptoms that

present themselves in a syphilitic infant. At birth it may appear plump, rosy and healthy, but in a short time it becomes emaciated, its face becomes old-looking, the skin peals off from the fingers, toes, palms and soles. Raw excoriations, papules or pustules may exist on different parts of the body, also watery elevations, boils, abscesses, etc. The mucous membrane of the nose may become dry and scaly, and mucous patches occur in the mouth and throat. Catarrh is violent, the secretion of which cakes up in the nostrils, causing such difficulty in breathing that the child is unable to nurse at all.

The little sufferer at first cries out suddenly, afterwards becomes so weak and emaciated that it sobs or whines pitifully, until death hushes it to rest. If it should chance to recover, it is liable to frequent relapses, and the many tertiary lesions that may result from the disease, render death far more peaceful than life. Of coarse, this represents a typical case without treatment, but by a proper and long continued application of anti-syphilitic remedies, the little one may entirely recover, and grow up to permanent health and strength. While this is the usual course of hereditary syphilis, yet it may not manifest itself plainly for years after birth. Fournier reports a case of tertiary inherited syphilis appearing twenty years after birth. Another is reported at twenty-six. The case which I related to you, in connection with gummy ulceration

of the roof of the mouth, I am thoroughly convinced was one of inherited syphilis, the secondary manifestations being so slight as to escape notice, perhaps, years before. Crops of boils or bullæ may appear during childhood as the result of syphilis. When due to syphilis, they are usually considerably elevated, some small, others large, and are filled with a thin, yellowish fluid, rounded and bulging (not so pointed, tender or throbbing as an ordinary abscess) with red or blue areola sloping off into the surrounding tissue. They commence generally in the palms of the hands, or soles of the feet. This lesion is not found well marked in acquired syphilis.

The teeth often indicate the existence of inherited syphilis. The upper central incisors have been shown to be the only ones to be relied upon as presenting pathognomonic appearances. The following is about the description pointed out by Mr. Hutchinson: "These are shorter than the neighboring teeth, narrower at their grinding border than at their base, and are marked on their grinding surface by a single broad antero-posterior notch. It is this notch which indicates surely that they are" syphilitic. I do not quote literally, but this is the substance of what he says.

The same writer, in referring to teeth, diseased from the effects of too free use of mercury, says: "The teeth most plainly marked are the anterior (first) molars. The incisors, all of them, and the

canine teeth suffer. The bicuspids escape. The mercurial tooth is deficient in enamel, covered with ridges and spines of exposed dentine, dirty looking, and apt to become promptly carious."

The treatment of hereditary syphilis will be considered in connection with the treatment of the acquired.

LECTURE XX.

TREATMENT OF SYPHILIS.

GENTLEMEN:—The treatment of syphilis resolves itself into two forms—local treatment of the primary lesion, and constitutional treatment.

Local treatment of the chancre is of no benefit only to the chancre itself, having, of course, no influence upon general manifestations. Some writers recommend that the chancre, together with a portion of the healthy tissues surrounding it, be excised, claiming that this method will often prevent secondary manifestations. Others recommend the immediate application of actual cautery for the purpose of destroying the chancre.

These methods are founded upon the belief that the primary lesion is local, and the general system is inoculated from it, through the medium of the lymphatics. When we remember, however, that chancre is not local, but that the poison has existed in the system for twenty-one days previous to its appearance, we at once see the folly of attempting to prevent secondary manifestations by such measures. Cases are reported as treated by both of these methods successfully.

I am inclined to think, however, that these were more likely errors in diagnosis than successful treatment, or if true chancre, that it was in persons who had formerly gone through a course of syphilis, and the secondary symptoms were thereby so modified as to be scarcely noticed.

Excision and cauterization, therefore, with the hope of arresting the progress of syphilis are worse than useless, since they produce considerable pain, and are productive of no good. Certain milder applications do often tend to heal the chancre, especially when aided by general treatment. Ordinary cleanliness is usually all that is necessary; yet there are some instances in which it is desirable to heal the sore as rapidly as possible, even before constitutional treatment is commenced. Patients, as a rule, desire to get it off the penis as early as possible, even if they understand the nature of the disease.

Again, it may be situated at a point which produces pain with every erection, or upon micturition.

As a local application, first and foremost stands iodiform, which may be dusted over the ulcer once or twice daily. The following may be applied with benefit where the smell of the iodiform prevents its use.

℞
Argentum Nitras, gr. x.
Aqua Dest., ʒ i.
M.

R.
Precipit: Alba., gr. x. to xx.
Simple Cerate or Vaseline, ℥ i.
M.

R
Red Precipitate, gr. xv.
Simple Cerate, ℥ i.
M.

R.
Alum Pulv.
Calomel.
Iodiform, *aa*, ℥ ss.
M.

This is an excellent application, since the odor of the iodiform is somewhat masked by the combination.

Solutions of sulphate of copper, sugar of lead, sulphate of zinc, tannin, sulpho-carbolate of zinc, persulphate of iron, etc., may be used with some benefit.

You will find, however, chancres very slow to heal under local treatment alone. They generally run their course unless internal medication is used.

General or constitutional treatment consists of two kinds—hygienic and medicinal.

You will meet with no disease in which a strict observance of the laws of health does more towards bringing about recovery than in syphilis. It is a disease which naturally breaks down the red blood corpuscles, the most vital cells in the entire system. Therefore, anything which tends to debilitate the system, aids the disease in breaking down the blood, and renders it less able to throw off the poison. Eating irregularly, over work, loss of sleep, excessive venery, alcoholic stimulants,

excessive use of tobacco, all have a deleterious effect, both by their direct influence upon the nervous system, and by impairing digestion and assimilation.

Syphilis is naturally a self-limited disease. It runs through a regular course, and tends towards recovery.

There are very many persons, especially women, who get well of syphilis without any bad effects, without even observing strict hygeinic rules. I recall now the case of a prostitute whom I was called to see more than two years ago, who had the papular syphilide thickly scattered over her arms and body, and a large mucous patch on one tonsil. She refused positively to take any mercury, and I declined to treat her unless she would. She consulted another physician, who also recommended mercury; so she declared she would take nothing at all, and she did not. The papules disappeared in four months; an occasional patch came in the mouth for six months, since which time she has had no trouble. During the whole time she never stopped eating at night, drinking stimulants, and violating all the natural laws which women of her class usually do.

There are very few deaths from syphilis, and I believe that a person of good constitution, having no hereditary predisposition to scrofula, cancer, etc., with proper regularity in habits and diet, will pass through its regular stage, and get well without

medicine every time. But in such cases of course the lesions would be manifested, rendering the victim unfit for society at the time, and perhaps would leave large and ugly scars. I allude to this fact, not to encourage or recommend the treatment of the disease without medicine, but simply to show the very great assistance that a proper system of hygiene is to the specific treatment.

Under this head, we naturally ask the question, If a person has been exposed to syphilis, can any means be instituted to prevent or lessen the chances of contraction? To this I would answer, that if the poison of syphilis is applied to the unabraded skin, it is not easily absorbed, and can be washed off in nearly every instance. If a solution of strychnine, atropia, arsenic, or any other poison, is laid upon the skin, it will not be absorbed easily, and may be wiped away without producing any effect, so it is with the poison of syphilis, But for this natural protection afforded by the skin, a chancre could not be examined thoroughly without the physician contracting the disease. This rule does not hold good in mucous membranes which are constantly moist, but in those which are exposed and dry, it does.

For example, the unabraded membrane of a glans penis which the prepuce does not at any time cover, is not likely to absorb poisons. For this reason, Jews are not so often the victims of this disease as Gentiles. After very careful observation, I am satisfied that a Jew rarely contracts syph-

ilis without the existence of an abrasion before the impure contact. Then, as a means of prevention, there is noting equal to circumcision. In addition, thorough washing with soda and water immediately after connection. If, however, the poison has been absorbed (which will generally be in a few seconds), nothing can be done to prevent the outbreak of syphilis. Patients, finding out a few days after sexual intercourse that the party has chancre, often apply to physicians for remedies to prevent the action of the poison. This is perfectly useless, and you should never administer anything under such circumstances, but wait for time to determine whether the disease exists or not, before instituting such a long course of treatment as syphilis requires.

The Hot Springs of Arkansas are a great resort for syphilitics, on account of the virtues supposed, by patients, to be resident in the waters. That a great many patients, in fact the majority, are benefited by a visit to Hot Springs, I do not doubt, but that there is any virtue in the water beyond that of any other hot water, I do most emphatically deny. Physicians there use mercury by inunction in great quantities—often, I fear, too generously.

When a patient visits the Hot Springs, he goes to be treated, and has nothing else to do. He is therefore not troubled by other business, and is prepared to carry out the directions of his physician according to the letter. He is directed

to stop the use of tobacco, and stimulants of all kinds, and to drink largely of the hot water every one or two hours. He is provided with an ounce box of blue (mercurial) ointment, directed to cut it into four equal parts, and have one part well rubbed in the skin every night, taking a hot bath in the morning. This course is continued, perhaps with the addition of twenty to one hundred grains of iodide of potassium, administered internally, three times daily. This is what is called "*a course of baths*" at Hot Springs, and the patient, of course, improves. If the water would cure, why the necessity of using mercury and iodine? If the water would cure, why are so many physicians now accumulating large fortunes there?

It would afford me joy beyond expression if there was a medicine, or a water, or a climate, that would speedily and surely cure syphilis; but if such exists, it has not been discovered. The Hot Springs, however, have their place and are very valuable in it; not as curative agents, but as a syphilitic resort.

A person may be too deeply engaged in business to carry on a proper treatment at his home, or he may not desire the manifestations to be observed by his friends. In such cases the springs afford a convenient resort, where he need not blush because of syphilitic lesions, since it is as common there as bad colds at home. I think, however, that many patients would do better if the mercury was not pushed so far. If a patient will take a regular

course of medicinal treatment at home, and a hot bath for five minutes every day, rub the skin well, and at the same time drink from a pint to a quart of hot water one-half hour before each meal, he will fare equally as well as those at the springs. They are not therefore a necessity, but simply a convenience.

The following hygienic rules will cover most cases, such changes being made as the nature of a particular case may, in the judgment of the physician, demand.

1. *The patient should abstain strictly from all forms of hog meat*, but have a sufficent supply of nutritious food, such as beef, mutton, chicken, turkey, sweet-milk, fresh butter and breads.

2. *He should abstain from the use of alcoholic stimulants.*—This rule, of course, must be varied according to circumstances. For example, if a man who has been drinking regularly for years, contracts syphilis, he should not be taken off at once, since such a course will do more to prostrate him than their use. The quantity, however, may be gradually lessened until he can do without, or drinks in moderation.

3. *It is best not to use tobacco.*—It does not very greatly interfere with the treatment, or increase the severity of the disease, except in a local manner. Patches in the mouth are difficult to heal, and are liable to recur in those who continue this habit.

Beyond this, its use is not especially pernicious.

4. *The body should be kept clean.*—Cleanliness is of the greatest importance to the successful treatment of a case of syphilis. At least three hot baths a week should be taken, and the skin well rubbed after each. The genitals and anus should be carefully washed with soap and water every day, otherwise, patches are liable to occur. If they do appear, the parts may be dusted with bismuth, white lead, or prepared chalk, or what is better, anointed with an ointment of oxide of zinc.

5. *The condition of the general system must be carefully watched, and medicated accordingly.*—If the appetite and strength fail rapidly, tonics must be given, in addition to specific treatment. If, during a mild course of mercury, the bowels should move too freely, they must be controlled by the administration of remedies, just the same as though the patient had no syphilis. Bismuth, ipecac, opium, tannin, etc., may be used until the intestinal membrane becomes accustomed to the mercury. I do not mean that doses of mercury, large enough to act on the bowels, should be given, and at the same time remedies used to control them. This rule applies only where there is an over sensitive intestinal membrane.

6. *The teeth should be carefully attended to.*—There is nothing more aggravating during a

course of syphilis, than the sharp edge of a decayed tooth rubbing against the cheek. They cause mucous patches to occur often, keep them irritated, and thereby render the patient very uncomfortable. Even if the teeth are perfectly sound, they should be thoroughly cleansed, at least once a day, while mercury is taken. Teeth that are covered with tartar keep the gums diseased, and render salivation so easy that it ceases to be a good test of mercurialization.

7. *Be moderate in all things.*—Excesses of all kinds should be very carefully avoided, and everything done in moderation. This rule applies specially to cases after they have been under treatment for a few months, and the rigid discipline, under which they are at first placed, has been withdrawn. Beer and wine may be drank, sexual intercouse may be allowed, a greater and a richer variety of food may be eaten, but all in moderation. In other words, the patient may go on as though he never had syphilis, but be cautious in every particular.

With the observance of these rules, and proper treatment, patients will generally do well, although no rule will apply to every case. You will find some who do everything in their power to assist in the cure, and yet the lesions are extremely obstinate, while others pay little attention to anything except medicine, and do much better.

We now come to cast about and see what medicines will be productive of the greatest benefit in the treatment of syphilis, and after exhausting the entire list, we are compelled to fall back on *mercury and iodine.* In olden times mercury was used in large doses in the treatment of syphilis. Then a strong prejudice arose in the profession against it, and it was, for a time, nearly abandoned. After experimenting for a few years hunting especially for some vegetable panacea, without success, the ablest and best syphilographers have, with one accord, pronounced mercury the "*sheet anchor.*"

The howl and cry raised against its use, and its terrible effects upon the bones, pictured by many, are such positive evidences of ignorance that their opinions are not worthy of a moment's consideration. Mercury, in large doses, may produce disease of the bones of the face, and produce some exfoliation, but this process ceases upon its withdrawal, and does not return again unless brought about in the same manner.

Notwithstanding the profession have agreed that syphilis can be more successfully treated by mercury than any other remedy, at the same time they have very much lessened the quantity to be used. The tendency of the medical world is to use just as little mercury as will accomplish the result, and no more.

The effects of mercury upon the system have been carefully noted within the past few years by Dr.

E. L. Keyes, by means of an instrument invented by himself (the hematimetre) for counting accurately the number of red blood in the area of a microscopic field. After careful observation the following conclusions were arrived at:

1. Mercury in large doses destroys red blood corpuscles, thereby producing anæmia.

2. Mercury in smaller doses increases the number of red blood corpuscles.

3. Iodides in either large or small doses rapidly increase the number of red blood globules.

4. Syphilis destroys red blood corpuscles.

You notice, then, that large doses of mercury, and the poison of syphilis produce the same effect upon the blood; while small or tonic doses of mercury, with or without iodide of potassium, exert an opposite influence. The perfect folly, therefore, of giving mercury in doses sufficiently large to produce salivation is at once apparent,

Before leaving this part of the subject let me impress firmly upon your minds the fact that mercury has nothing to do with producing disease of the bones years after treatment.

SALIVATION.

If mercury be pushed to such an extent as to produce its toxic influence, the first effects are usually felt in the gums. When salivation is

approaching, the following symptoms are well-marked:

1. There is a strong, metallic taste in the mouth, especially on rising in the morning. It seems as though a metallic substance in solution was exuding from the gums themselves.

2. If there are any decayed teeth, their edges become unusually annoying to the tongue, and teeth which contain fillings become sensitive and sore.

The first soreness of the gums is felt in the upper jaw behind the incisors; in the lower jaw, immediately behind the last molar teeth, and inner side of the bicuspids.

If the same dose is still used after these symptoms have appeared, the gum behind the last molar becomes tumid and swollen, until it rises almost as high as the grinding surface of the tooth, becomes loose, and is easily pressed away with the tongue. At the same time, the gums near the other teeth become swollen, tender, spongy, and bleed easily upon the slighest irritation.

In the beginning of salivation the characteristic livid line, or mark, may be distinctly seen along the edges of the gums at the necks of the teeth. This peculiar condition of the gum, behind the last molar, I regard as a pathognomic symptom of salivation, and the mercury should not be pushed after

its appearance. The cutting of a wisdom tooth must not be mistaken for this condition.

3. If the mercury is still pushed, the gums along the necks of the teeth will turn white, and finally slough away. Their appearance at this time is very much as that produced by the application of pure carbolic acid, white or whitish-gray, and dead. This condition of the gums produces very great pain and uneasiness, the patient is unable to bite anything at all, the teeth become loose, and, when gently snapped together produce pain, and feel as if they were very much elongated.

4. The saliva at first is slightly increased, and the patient is inclined to spit frequently.

Later, it runs from the mouth in a stream, the patient being unable to spit on account of the great soreness. During sleep it flows freely from the corners of the mouth and wets the pillow. The tongue may become swollen, tender and protrude from the mouth. The tonsils generally become swollen, and the throat sore. In severe cases ulcers may appear in the throat, on the inner surface of the cheeks, and on the tongue.

5. There is a corresponding depression of the vital powers. There is despondency, loss of appetite, headache, dizziness, pallor, loss of energy, and, in short, all the symptoms that would naturally follow a prostrated nervous system, and a devitalized blood.

Through ignorance the ulcerations of salivation are sometimes considered syphilitic, and the mercury is still pushed on the unfortunate victim. Salivation should never be brought on intentionally, as it is always harmful, assisting syphilis in its work.

In the *treatment of salivation* the first thing necessary is to suspend the use of mercury entirely until the gums are healed, which usually occurs spontaneously from one to two weeks.

Chlorate of potash is recommended by all authorities, both as an internal and a local remedy. Internally, it does good, since it, perhaps, gives an additional supply of oxygen to the blood; but I must confess that I have never seen any good results from its local application. It seems to have been universally adopted by the profession as a mouth wash, for want of something better, and not on account of any specific virtue it might possess.

I have more than once been treating two cases of severe salivation at the same time; in one it would be used freely, in the other not at all, and no distinction could be observed as to the recovery. I can assure you that I have carefully and zealously tried it as a local application, hoping to find some virtue in it, but have entirely failed. It has been "weighed in the balances and found wanting." While there is no remedy which acts specifically on

salivation, yet salicyllic acid is far superior to chlorate of potash.

The patient's bowels should be gently opened with a siedlitz powder; his diet should be bland, but nourishing, the tartar carefully removed from the teeth, and the following wash used:

R.
Salacyllic Acid, ʒ ss.
Alcohol, ℥ i.
Dissolve and add
Tr. Cinchona Comp., ʒ ss.
Spts. Lavender, ʒ ij.
Mixt.: Oleosa, Balsamica, ℥ ij.
M.

Put one teaspoonful in teacup of clear water, and use every half hour, or as often as time will allow.

The mixture oleoso, balsamica, is from the old Prussian pharmacopœia, and is made as follows:

℞
Oil of Lavender.
Oil of Cloves.
Oil of Cassia.
Oil of Thyme.
Oil of Lemon.
Oil of Mace.
Oil of Orange, *aa*, ♈ j.
Balsam Peru, ʒ i.
Alcohol, ℥ x.
M.

From the mixture of these seven oils with the balsam it is named the oleo-balsamic mixture.

The following may be used with benefit also:

℞.
Tr. Myrrh.
Tr. Arnica, *aa*, ℥ i.
Salicyllic Acid, ʒ i.
M.
Use one teaspoonful in teacupful of water.

After the salivation has completely disappeared, mercurials should be resumed, but in much smaller doses.

LECTURE XXI.

MERCURY AND THE BONES.

GENTLEMEN:—We often hear of a persons' bones being broken by trivial causes, and the blame is at once laid upon mercury. Within the last few years, I have seen a man who broke his thigh while pulling on his boot; another fractured the humerous by throwing a stone; and another fractured the femur by turning over in bed. Each one of these patients had been treated for syphilis, and had taken mercury years before, perhaps four or six grains of the biniodide altogether, and yet they would record them at once as the evil effects of mercury. Is it not strange that no bones break in this way except syphilitics'? If mercury in the small doses used at the present day, is capable of producing such disastrous influences, is it not wonderful that our fathers and grandfathers, who were reared in an age of bleeding and salivation, should have such sound bones, and produce children and grandchildren of such health and vigor? No, it is not the *use* of mercury that causes the bones to decay and become so brittle, but it is the *want* of it. A disease which mercury

alone can eradicate has gradually sapped the very life of the osseous system.

Show me a man who has never had syphilis, and I will give him mercury for two years and no effect will ever be produced upon the bones; but show me a man who breaks his bones upon slight exertion, and I will show you one who has not only had syphilis, but one who has not taken a thorough course of mercury, or has paid no attention to general hygiene during treatment.

It is time for the medical profession to rise above such prejudice and ignorance, and view things in a more scientific manner. We find from observation, therefore, that mercury in proper doses controls the symptoms of primary and secondary syphilis more perfectly than any other remedy.

We find also that iodide of potassium, given in sufficient quantity, causes late secondary and tertiary lesions to disappear as if by magic. Then in the treatment of syphilis in any of its stages we can rely on no other medicines so well as these; consequently we seldom resort to others, unless it be in the form of general tonics to build up the system.

Mercury has been used generally in the treatment of syphilis since 1496, but the exact dose and its effects have not been well understood until quite recently. It has long since been my conviction that many of the failures of all medicines in curing disease has been due to the fact that sufficient attention and

study have not been given to the doses. The plan of laying down, as is done in all works on materia medica and therapeutics, a given dose according to age, is not on the right basis. I hope the day is not far distant when we shall be able to determine the dose of a given medicine for each and every case. When this is done, the success of physicians will be far more satisfactory than now.

This fact has been fully appreciated by Dr. E. L. Keyes in the use of mercury in syphilis, and it is with pleasure that we acknowledge this very great advancement. While his system is not perfect, it is far superior to any yet suggested.

He recommends that mercury be used in, what he chooses to call, "tonic doses," and for this purpose prefers the little granules which you see in this bottle. They are prepared in France by Garnier and Lamoureux, are sugar coated, and each granule contains one centigramme (one-sixth of a grain) of the proto-iodide of mercury. This preparation is reliable, since the amount of mercury in each pill is very accurately graded. The leading objection is that sugar coatings become hard from exposure, and sometimes pass through the alimentary canal without being dissolved. The gelatin-coated pills, prepared by J. G. Greener & Co., of this city, have proven more satisfactory. They are equally as accurately proportioned, and are more certain in their action. They contain the same amount (one-sixth of a grain) of proto-iodide. They can be kept an

indefinite length of time without interfering with their digestibility.

The method of arriving at the dose, by Dr. Keyes, is as follows: He says, "to bring a patient under the tonic treatment, if there be time, the following is the best course: Let him take one standard dose of mercurial (one granule of the proto-iodide, for example), after each meal, for two or three days. On the fourth day one extra standard dose is added at the mid-day meal; now four standard doses (granules) are taken daily, and this is to be continued for three days.

"On the succeeding fourth day another standard dose is added, the five daily standard doses being taken, two in the morning, one at noon, and two at night. On the next following fourth day, always counting from the last fourth day, another dose is added, two standard doses being now taken after each meal—six (granules) a day.

"In this way the amount of mercurial given is gradually increased, while the patient uses bland food in moderate quantity, and regulates his habits as far as may be, and the dose is slowly increased every third or fourth day, or even every second day, if the patient is pushed for time, and the appearance of an eruption makes haste an object, until the irritating or poisonous action of the drug begins to manifest itself."

This process is continued until diarrhœa and griping supervenes, or the gums begin to show

signs of salivation, when the dose is reduced one-half, which he considers the "tonic dose." In this way the dose for each patient is arrived at conclusively. According to this method you will find the tonic dose for some patients to be four or five granules (two-thirds to five-sixths of a grain of proto-iodide) three times a day, while others can only bear one. Dr. Keyes calls the dose which produces symptoms of salivation the "full dose," and recommends that it be continued for some weeks, if the symptoms require it, and after they yield, to drop back to the tonic dose.

It is necessary to call your attention here, to the fact that the character of food used very greatly influences the effect of mercury upon the system. If the patient is allowed to eat freely of acids, vegetables, fried meats and salt, the effort to arrive at a proper tonic dose will be futile, since, under such circumstances, a much smaller dose will either salivate, or irritate the intestines than would otherwise. So, if this plan is undertaken, the diet must be plain and bland, such as boiled milk, tea, rice, soups (with little salt) crackers, toast, rye-bread, the breast of chicken, or turkey, and roast beef. After taking the tonic dose for a few weeks, and the system becomes more or less accustomed to it, the patient may be allowed more scope in his diet. It is evident that this plan of giving mercury is very far superior to the barbarous method, still persisted in by many, of salivating severely, and as quick as

possible. The patient who falls into the hands of such a practitioner would fare far better if he followed hygienic rules strictly, and took no mercury at all. There are some objections to this slow method of regulating the dose for each patient.

A great many have not the time to wait for it, and on others the lesions advance so rapidly as to demand immediate relief. Patches in the mouth often get worse so fast, before the full dose is reached, that the patient becomes restless and anxious in regard to himself. The better plan, perhaps, to obviate these objections, is to put him upon some form of mercury, in solution, with a sufficient dose, until the symptoms yield, then suspend, and find out the tonic dose. The good derived from the tonic dose is not so much in its promptness to relieve early symptoms as to hold the system slightly under the influence of mercury for the length of time required, without producing its depressing influence. When a patient presents himself for treatment, he should be placed upon the following recipe (which meets fully all the indications) until the symptoms disappear, his appetite is improved, and a general feeling of vigor and activity exists :

R.
Hydrarg. Bi-chloridum, gr. ij.
Iodia, ℥ vi.
M.
Take one teaspoonful after each meal.

Iodia is prepared by Battle & Co., of St. Louis, and contains extracts from the green roots of stillingia, helonias, saxifraga and menispermum. Each fluid drachm also contains five grains of iodide of potassium, and three grains of phosphate of iron. While mercury is the only medicine that can be considered as exerting, in any degree, specific action in the first and second stages of syphilis, and while no preparation is efficacious without it, at the same time vegetable alteratives aid it very materially in subduing the symptoms, and in improving the general condition of the system. The tendency of the profession is too much toward discarding everything but mercury. I have often seen mercury alone, or combined with iodide of potassium, fail to heal secondary ulcerations, which speedily disappeared when vegetable alteratives were combined with it. It is, therefore, best to have the good effects of the only three reliable remedies at once, viz.: mercury, iodine, and vegetable alteratives. I will mention just here, that the patient which I alluded to in a previous lecture, as having showed no secondary lesions, whatever, for four years after the appearance of the chancre, took the prescription, just mentioned, for the first year, and I have observed that in all cases treated in this manner, secondary lesions are very much modified and easy to manage.

Another strong argument in favor of this plan of treatment is that the biniode of mercury, which is

formed by mixing iodide of potassium and the bi-chloride, being very soluble in a solution of iodide of potassium, but not in water, is thereby constantly eliminated, and not allowed to be deposited in the tissues for awhile, then, perhaps, dissolve and produce the poisonous effects of the drug to its fullest extent. For example, I once saw a patient who had taken the biniode of mercury in pill (one-thirtieth of a grain after meals) for two weeks without any abatement of his symptoms. He was placed upon the iodia and mercury, the first dose of which he took at night. On the next morning the saliva was flowing in a stream, and in two days he was badly salivated. The mercury he had taken for the two weeks previous, had not been dissolved, and, therefore, had not done the work as it should, but had been accumulating in the system, the iodide of potassium dissolved it, and thus, the effects of a large quantity, was exerted all at once. This is more liable to occur with blue ointment, bi-chloride and biniodide, than with the proto-iodide. The effects of such an action are attended with some hazard to the patient. This one suffered severely for seven weeks from general prostration, sore gums, loss of appetite and headache.

All mercurial preparations control primary and secondary symptoms, but some are more active than others. The tonic dose of any preparation may be discovered in the same manner as with the granules. They are preferred simply from the fact that they

can be carried about and taken anywhere, without the least inconvenience. You will find men who claim a superiority of one mercurial over another. Blue ointment, bi-chloride, proto-iodide, blue mass, calomel, mercury with chalk (hydrargyrum cum creta), oleate and albuminate, each have strong advocates, but the effect at last is the same, viz: that of mercury. In some instances one form is preferable to others, and it is often beneficial to occasionally change from one preparation to another during a regular course of treatment. It may also be administered in four different ways, internally, by inunction, by vapor bath, and hypodermically. The following are some recipes which will illustrate the different preparations of the drug that are used internally.

℞.
Hydragyrum Chlor. Mite, (calomel) ʒi.
Bi-carb. Sodæ, ʒi.
Mix.
Make 30 powders.
One three times daily.

℞.
Ext. Opii, gr. v.
Blue Mass, ℈ij.
Mix.
Make 24 pills.
One night and morning.

℞.
Blue Pill. ℈i.
Hydrarg. Chlor. Mite (calomel) gr. x.
Hydrarg. cum Creta ℈i.
Ext. Opii. gr. v.
Mix.
Divide into twenty pills.
One night and morning, increased according to necessity.

A favorite prescription in the hospitals at Paris, is that of Gibert:

℞.
Hydrarg. Biniodide gr. i
Potas. Iodid. ʒ i.
Aqua Dest. ʒ i.
Filter through paper, and add
Simple Syrup ℥ v.
Mix.
Dose: one tablespoonful.

Van Swieten's fluid is—

℞.
Hydrarg. Biclhlorid. 1 part.
Water (pure) 900 parts.
Rectified spirits, 100 parts.
Mix.
Dose: one tablespoonful.

℞.
Hydrarg. Bichlor. gr. ij.
Iod. Pot. ʒ ij.
Aqua Dest. ℥ ij.
Syrup Sarsaparil Com., ℥ iv.
Mix.
Dose: one teaspoonful, three times daily.

This is a very common prescription, and more generally used, perhaps, than any other. The bichloride of mercury and iodide of potassium are chemical incompatibles, and the biniodide of mercury is formed. It is this preparation then that is given when this prescription is used. Calomel and blue mass are objectionable from the inconvenience

of their administration, and the difficulty in preventing salivation. The best form for continued use is the biniodide, or proto-iodide, since they can be given easily in pill or solution, and are less liable to irritate the intestinal membrane.

Inunction is one of the very best methods of administering mercury. Blue ointment is the preparation generally used, and is preferable to others, but if an over-fastidious patient objects to it on account of its color, the oleate may be substituted. It is not necessary to resort to the inunction unless the symptoms are active, and consequently an immediate effect is desired, or the stomach fails to tolerate other forms. You should adopt the following plan:

At night a piece of mercurial ointment the size of a chestnut should be spread upon the thigh, and well rubbed for at least fifteen minutes with the naked hand, or better, with a buckskin glove.

On the next night this is to be repeated on the opposite thigh, and on the following morning a hot bath is taken, and the skin well rubbed. The two following nights the arms to be treated in the same manner, followed on third morning again by the bath. If it is not convenient to bathe so frequently, four applications may be made between them—one to each thigh and one to each arm. In this way the pure mercury is absorbed through the skin into the system, and its full effects produced.

There is usually a slight eruption puts forth at first, where the ointment is rubbed, but this generally does not last after the second or third inunction. If the little pustules become sore and obstinate, they may be promptly relieved by an ointment of the oxide of zinc—fifteen grains to the ounce of simple cerate.

Iodide of potassium should be administered internally at the same time, in order to certainly dissolve it. If extensive secondary lesions exist, it should be given in large doses, otherwise small ones will answer as well.

If the patient cannot take the iodide, nitric acid may be given instead, in five drop doses, three times daily, largely diluted, unless the lesions absolutely demand the iodine.

Mercurial fumigation or the vapor bath is given in the following mander: A small apparatus made of tin, consisting of a little round top stand, supported by four legs, with a groove around the top, is prepared; three or four grains of calomel are spread upon the top, and hot water poured in the groove around. A small spirit limp is placed underneath. The patient is stripped and seated in a chair with no bottom; a large blanket is fastened around his neck and allowed to hang down, covering his entire body and the chair. The lamp is lighted, and as the water boils the calomel vaporizes and is carried with the steam to the body on which it settles. The patient should now be placed

in bed, and remain for two or three hours. It is best to give the vapor bath at night, just before bed time, in order that the patient may not be exposed to the air for some hours, since profuse perspiration is produced.

This manner of administering mercury is very efficacious where there are many existing syphilides, which it is desirous to remove speedily; but they should not be continued for any great length of time, on account of their prostrating influence, and the difficulty in regulating the dose. They may be used until the skin lesions disappear, and then internal treatment resorted to.

The hypodermic injection of mercury is warmly advocated by Lewin, in a small work on this plan of treatment. He uses bi-chloride of mercury dissolved in water and alcohol once a day. The effect is fine, but the sores produced by the local irritant properties of the mercury are very unpleasant, and patients are usually not willing to endure it. Its use is unnecessary—only in very obstinate cases, where other methods have failed, it may then be tried.

At what time should a course of mercury be commenced, and at what time should it be discontinued are important questions. In answering the first, I must apologize for differing from the authorities of the present day; nevertheless, my experience has taught differently, and so I must teach you.

In the valuable work of Bumstead and Taylor,

on Venereal Diseases, (page 469), we find the following words italicised, "yet it is a fact, attested by many observers, ourselves included, that those cases ultimately do best in which specific treatment is deferred until the secondary stage." Ziessl and Sigmund advocate the same.

While Dr. Keyes properly admits that specific treatment should commence as soon as the disease is diagnosticated, nevertheless, in referring to the difficulty of diagnosis, he says, (page 116), "practically, therefore, the treatment should not be commenced until the first general symptoms appear—the chancre, with the accompanying glandular engorgement is not enough to go by. If mercury arrests to any extent the action of the poison of syphilis upon the system, it is certainly not only proper, but the duty of the physician to begin its administration as soon as he determines that syphilis exists. In cases where any doubt exists, it is highly proper that this doubt be forever settled by waiting for secondary developments; yet there are very many cases, where the existence of chancre is too plain to be ignored. The appearance of the secondary lesions is a positive proof that the disease has a much deeper hold on the system than in the primary stage, and, therefore, is harder to eliminate. If a patient presents himself with an oval or round ulcer, with smooth, sloping and adhered edges, and decided induration of the lymphatic glands in the groin, it is presumable that he has syphilis,

and treatment should be commenced at once. The very effect of mercury without local treatment, will clear any doubt that might remain. If it is not syphilis, the sore will not heal readily under its influence, while if it is syphilis, the improvement will be marked and steady. I would not recommend that mercury be administered as a means of diagnosis in all suspicious cases; but where everything points towards syphilis, it is then foolish and unscientific not to apply the sure test.

I regard a certain combination of symptoms mentioned in a previous lecture as pointing as surely to chancre as late symptoms do to secondary syphilis. My observations has proven one fact beyond dispute, and that is, that where proper treatment is commenced during the primary stage, the secondary symptoms are so ameliorated as to annoy the patient or physician, but little, if any.

Treatment should be continued at least two years—better three. The first year it should be kept up constantly; the second year every alternate month; the third year every third month. If any evidence of the disease remain after this, of course treatment must be kept up longer.

LECTURE XXII.

IODINE AND ITS COMPOUNDS.

GENTLEMEN:—We have already spoken of the effects of the iodides upon the red blood corpuscles, thereby showing their value as alterative tonics. This virtue is not due to the base potassium, but to iodine, since iodide of potassium, sodium, ammonium, calcium, manganese and starch all produce the same effect. The one that contains the most iodine is productive of the most good. The specific action of iodine in syphilis is confined almost exclusively to the late secondary and tertiary stages. Tertiary lesions do not yield to mercury, but with iodine they melt like snow before the sun. There is no remedy in our possession on which we can rely more confidently than the iodide of potassium in tertiary lesions. The dose must be regulated according to its effects, commencing at five or ten grains (in solution) three times a day, and increasing according to the obstinacy of the symptoms. Marvelous quantities are sometimes given, and equally marvelous and gratifying results are produced. A patient will sometimes take three hundred grains a day with impunity and benefit.

Iodine should be used in connection with mercury in the primary and secondary stage, not so much on account of its action towards relieving, but to insure the action of the mercury by holding it thoroughly in solution.

The effects of iodine are as follows: Almost immediately after its administration is commenced, all the symptoms of a severe cold are manifested. The eyes become suffused and watery, the mucous membrane of the nasal cavities is congested or slightly inflammed, and discharges abundantly. At the same time there is more or less headache located in the region of the frontal sinuses, directly between the eyes, and considerable soreness of the masseter muscles, which is very perceptible during mastication. This soreness of the jaws is often the first effect noticed, and, in addition, there is occasionally a general muscular soreness. The preparations of iodine produce a strong metallic taste in the mouth, especially upon waking in the morning, and usually a constant singing in the ears (tinnitus aurium). Sometimes they produce a decided irritation of the stomach, accompanied by loss of appetite and nausea. In some individuals they produce very great nervous depression, melancholy, and pains in the bones.

The eruptions produced by iodine resemble very strongly syhilitic lesions, and may be mistaken for such. Erythematous, squamous and pustular affections of the skin result from its use, and in anæmia

patients, purpura hæmorrhagica after its long continuance. The early effects of iodine, as a rule, soon pass away, and it is continued without difficult over as long a period as may be desired.

The acute catarrh, soreness of the muscles, nausea, and even the eruption subside, and the dose may be gradually increased until a sufficient quantity is given to control the symptoms, without producing any of the unpleasant effects of iodism. In some persons, possessing a natural idiosyncrasy against it, these symptoms do not disappear, but grow worse, under very small doses, until the remedy becomes unbearable. If tertiary lesions exist in such person, it is absolutely necessary that the remedy be continued, and other means must be used to lessen its unpleasant effects. The headache may be prevented by giving bromide of potassium in connection with the iodide, atropia may be given separately, in small doses, to control the abundant secretion from the nose, and the bowels must be kept open, the meals taken at regular intervals, and the food bland and unstimulating. The iodides should not be given on an empty stomach, but within one hour after eating. It is thought by some authorities that if they are taken soon after meals the starch contained in the food will neutralize the iodine. This is a mere supposition, and not borne out by actual experience, since they act as well, and are endured better by the stomach, when taken on a full stomach than on an

empty one. Iodide of potassium is more frequently used than all others, mainly on account of its cheapness, but others act equally as well. I have found a combination of several different preparations in small doses produces a more rapid amelioration of the symptoms, than a single one in larger quantities. A favorite prescription with me is,

℞.
Iodide of Sodium,
" Amm.,
" Calcii, *aa*, ʒ i.
" Potassium, ʒ vi.
Syr. iod. Manganese, ℥ ij.
Aqua, ℥ iv.
M.

Of this mixture one teaspoonful largely diluted with water, is given three times daily, after meals. The effect can be increased, if desired, by adding more of the iodide of potassium, from time to time. Used properly, iodides in connection with mercury (mixed treatment) in secondary, and alone in tertiary lesions often perform wonderful curés. I here allude to a case which is only a type of many. The report was written by the patient himself.

" Had connection with a woman early in November, 1879. About Christmas noticed swelling of prepuce and burning pains in penis. Thought it soft chancre, and did not consult a physician. In a few days complete phymosis ensued, and the penis

grew worse. Phymosis first appeared December 29th. On January 11th a severe hemorrhage set in, caused by giving way of the dorsal artery. Circumcision was immediately resorted to, and the corona was found to be gangrenous, tissue to the size of a filbert being destroyed, leaving a urethral fistula. In a few weeks the secondary eruptions appeared, accompanied by severe sore throat. Mercurials and the iodide of potassium were used freely, but the ulcerations on tonsils increased. At length, in despair, was sent to Hot Springs, Arkansas, and by using the water freely, aided by iodide of potassium, the throat improved, but about June 1st, six months after the appearance of the initial lesion, ulcers began to form wherever the eruption had appeared, showing a preference for hairy parts of head and limbs. Finally, large, deep-looking ulcers extremely sensitive, formed on legs and ankles, and discharged freely—the largest was oblong, four and a half by three inches. These ulcers were accompanied by swelling of feet and great prostration. Dr. G. first saw me January 19th, 1881. My condition was desperate; the ulcers allowed no rest or exercise, nothing afforded even temporary relief. He prescribed proto. iod. mercury granules, one-sixth grain, six per diem and a solution of syrup iodides ammonium, potassium, sodium and magnesium three times daily, the ulcers to be dressed with simple cerate and white precipitate.

The improvement was wonderful. A new cuticle appeared to form on the floors of the ulcers, and gradually to rise even with the surrounding tissue. The hair follicles, apparently, were not destroyed, as new hair appeared on the lately-formed cuticle.

By March 1st the sores had all entirely healed, and since that time there has been no return either of ulcers or glandular affections. Some scars remain, but they are gradually fading.

I still continue to take one-third gr. proto. iod. merc. per day, and regard myself as entirely cured of syphilis."

This young man, as you see, had been to the famous Hot Springs of Arkansas, and had taken mercury and iodide of potassium under the supervision of three different physicians, without relief, but the combination of several iodides with the mercury, performed a miraculous cure in a short space of time. He is now in good health, and not a single evidence of syphilis is apparent.

Local treatment of secondary ulcerations is very important, and aids materially in their rapid recovery. While the constitutional treatment produces a better condition of the blood, it is often very slow to relieve local ulcerations. This is especially applicable to sores in the mouth and throat in those who use tobacco.

The following recipes are valuable, and should be applied once or twice a day:

℞.
Hydrarg. Bi-chloride (corrosive sublimate) gr. iv.
Alcohol.
Tr. Myrrh, *aa* ℥ ss.
M.
Apply with a camel's hair brush or soft mop.

This is the very best application, and its effects are rapid and satisfactory.

℞
Nitrate of Silver, gr. x to xxx.
Aqua Dest., ℥i.
M.

This solution should be prepared freshly every day, since its strength is lost by keeping.

℞.
Sulphate of Copper (Blue-stone) gr. xv.
Aqua Dest., ℥ i.
M.

℞
Salicyllic Acid, gr. x to xxx.
Tr. Myrrh, ℥ i.
M.

℞.
Sulphurous Acid, ℥ss.
Glycerine, ℥iss.
Aqua Dest. ℥ ij.
M.

℞.
Permang. Pot. gr. iss.
Aqua Dest. ℥ i.
M.

Excellent applications for mucous patches. The quantity of water may be increased to six or eight ounces, and the mixture used as a wash and gargle every two or three hours. When the lesions do not yield under the use of these solutions,

the application of acid nitrate of mercury speedily removes them, one application usually being sufficient.

For syphilides, the remedies are best applied in the form of ointments or dry powder.

℞.
Hydrarg. Amm. (white precipitate), gr. xv. to xx.
Simple Cerate or Vaseline, ʒ i.
M.

℞.
Oxide of Zinc, gr. x. to xxx.
Simple Cerate, ʒ i.
M.

Nothing equal to these.

℞
Red Precipitate, gr. viij.
Simple Cerate, ʒ i.
M.

Citrine ointment is also very valuable.

℞.
Yellow Oxide of Mercury, gr. x. to xxx.
Simple Cerate, ʒ i.
M.

To any of these ointments may be added five or ten drops of oil of bergamot, citrinella or roses, which will give them an agreeable odor. Iodoform may be used over a large secondary or tertiary ulcer with great benefit.

Since its smell renders it very objectionable, salicyllic acid can be substituted, and will be found to act well, Calomel is also beneficial in obstinate ulceration.

The treatment of hereditary syphilis is the same as that of acquired, namely: mercury and iodine. If the lesions are secondary, mercury and iodides in small quantities must be used; if purely tertiary, iodides alone are to be resorted to. In infants, mercury is best administered by inunction, since the stomach is so sensitive and easily irritated. It is not necessary to rub blue ointment, as in the adult, but simply anointing is sufficient, on account of the delicate structure of the skin at this age. It is best to spread the ointment on a piece of cloth and secure it around one of the limbs every night, carefully noting the effect. It will produce decided eczema mercurialis at first, which, however, will soon pass away. The iodides should be commenced in small (one grain) doses, and very gradually increased according to the necessities of the case. In older children, mercury and iodide of potassium may be combined with some pleasant vehicle, and administered internally. For example:

℞.
Iodide Pot. ʒ iij.
Bichloride Hydrarg, gr. i.
Syr. Sarsap. Comp. ℥ iv.
Aqua Dest. ℥ ij.
M.
Dose: one teaspoonful.

It is almost impossible to produce salivation in an infant, nevertheless mercury should not be recklessly given, but just as little used as will relieve

the symptoms. In older children the effect must be closely watched, and in no case should severe salivation be produced.

The history of syphilis has been postponed until after its effects and symptoms were fully explained, in order that you might recognize its existence long before we have an authentic report. What originally produced the first case of syphilis, and when it first made its appearance, no one knows, but that it has existed for many hundred years, is certain, and that it is now much more modified and easily managed, is equally true. It was first recognized as a distinct and special disease in 1494, in Italy, about the time that Charles VIII. entered that country for the purpose of taking possession of the province of Naples. At that time it became so prevalent and so malignant (killing many) that it is often referred to as the "Italian epidemic."

There is no doubt, however, that it existed long before this. Please note carefully the following passages of scripture, which are alluded to with no intention of irreverence, but as matters of historical interest; and compare them with the symptoms encountered at the present day:

Job, chapter xix, verse 17, we have these words: "*My breath is strange to my wife, though I entreated for the children's sake of my body.*

Same chapter, 20th verse, "*My bone cleaveth to my skin and to my flesh, and I am escaped with the skin of my teeth.*"

In chapter xxx, verses 16, 17, mark these words: "*And now my soul is poured out upon me; the days of affliction have taken hold upon me.*

My bones are pierced in me in the night season, and my sinews take no rest."

In the 38th psalm, from the 3d to the 7th verse inclusive, we find this language:

"*There is no soundness in my flesh because of thine anger; neither is there any rest in my bones because of my sin.*

"*For mine iniquities are gone over my head; as an heavy burden they are too heavy for me.*

"*My wounds stink and are corrupt because of my foolishness.*

"*I am troubled; I am bowed down greatly; I go mourning all the day long.*

"*For my loins are filled with a loathsome disease; and there is no soundness in my flesh.*

Same chapter, 11th verse: "*My lovers and my friends stand aloof from my sore; and my kinsmen stand afar off.*"

You see from a careful study of these that Job was surely the victim of syphilis, describing as he does that characteristic symptom, pain in the bones at night. "*It pierceth my bones in the night time.*"

It is strongly probable also that David was syphilitic, though the symptoms are not so accurately described. A careful study of these two cases is important, since they illustrate the original virulence of the disease, and prove the natural tendency of

the system to finally throw it off without treatment.

Phtheiriasis Pubis (*crab lice*), *Crabs*, as they are commonly called, are very small animal parasites. Their bodies like a shield, their heads like a fiddle, from which five little horns or antennæ project, in front of which are two small eyes.

They are very small, and have a light brown color. The first effect noticed is an itching in the pubic and femoral regions, which is worse at times, often troubling only at night; sometimes slight, and again so annoying as to prevent a person from appearing in society. They are found amongst the hairs on the genitals of both male and female, consequently are contracted during sexual intercourse. They may, however, be dislodged by the fingers and carried to other hairy parts, the axilla, or whiskers, for example. Upon examination of a person affected with them a number of minute brown specks will be seen sticking to the skin and to the hairs. The hairs also have dirty white particles (eggs) attached to them, which give them a rough feeling when drawn through the fingers.

The treatment of crab-lice is purely local, and is always promptly successful. Mercurial ointment is an efficient remedy. The patient takes a hot bath, rubs the ointment on the parts, and in twenty-four hour takes another hot bath.

Blue ointment is very filthy, consequently either

of the following may be used with equally good results:

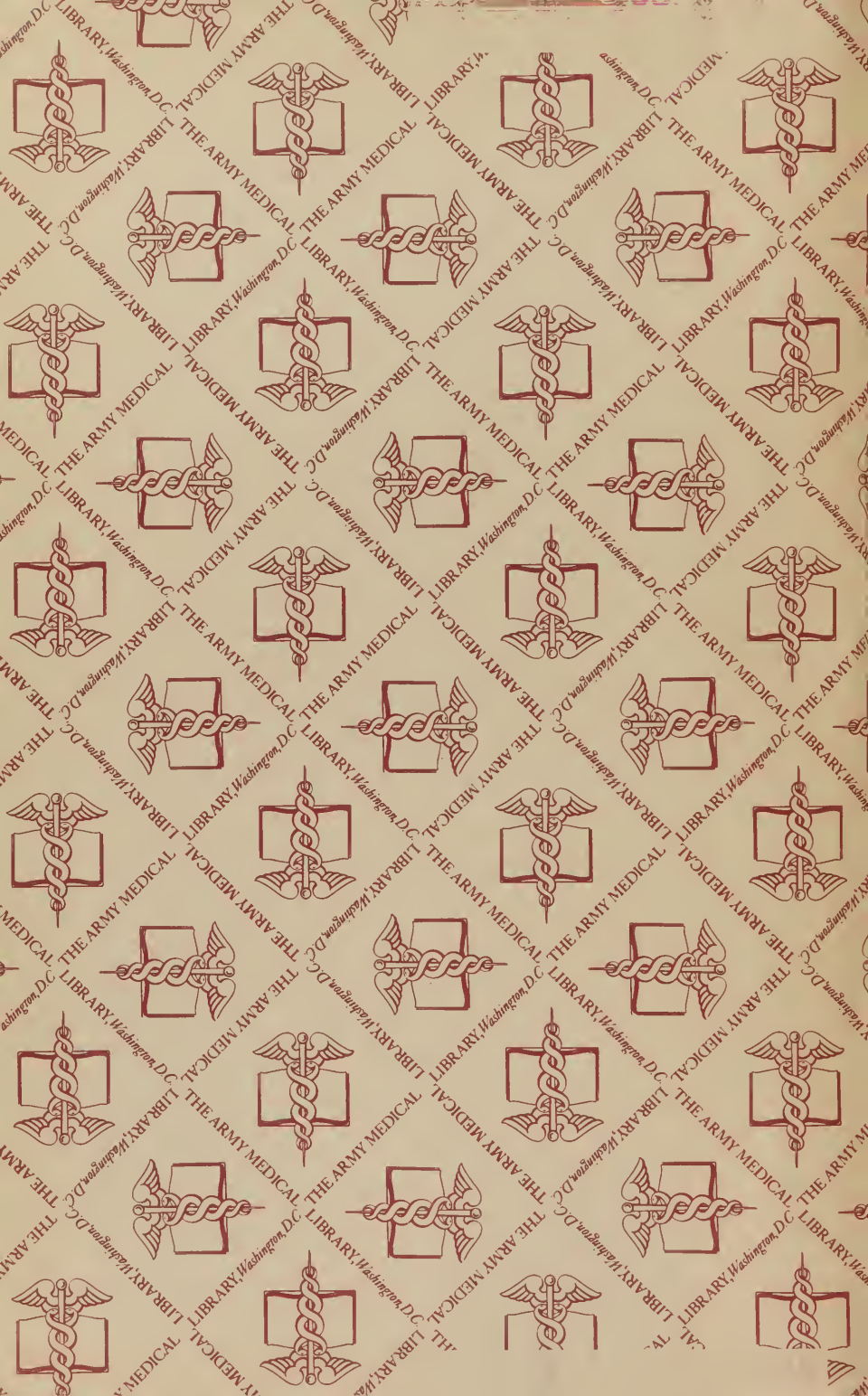
Ol. Sassafras, ℥ ij.
Apply once or twice a day.

Ol. Pennyroyal ℥ iij.
Apply.

Bi-chloride Hydrarg. gr. iv.
Aqua Dest. ℥ iij.
Alcohol ℥ iij.
Ol. Roses or Citrinella, gtts. x.
M.
Apply.

This affection has no connection whatever with syphilis or other venereal diseases.

INDEX.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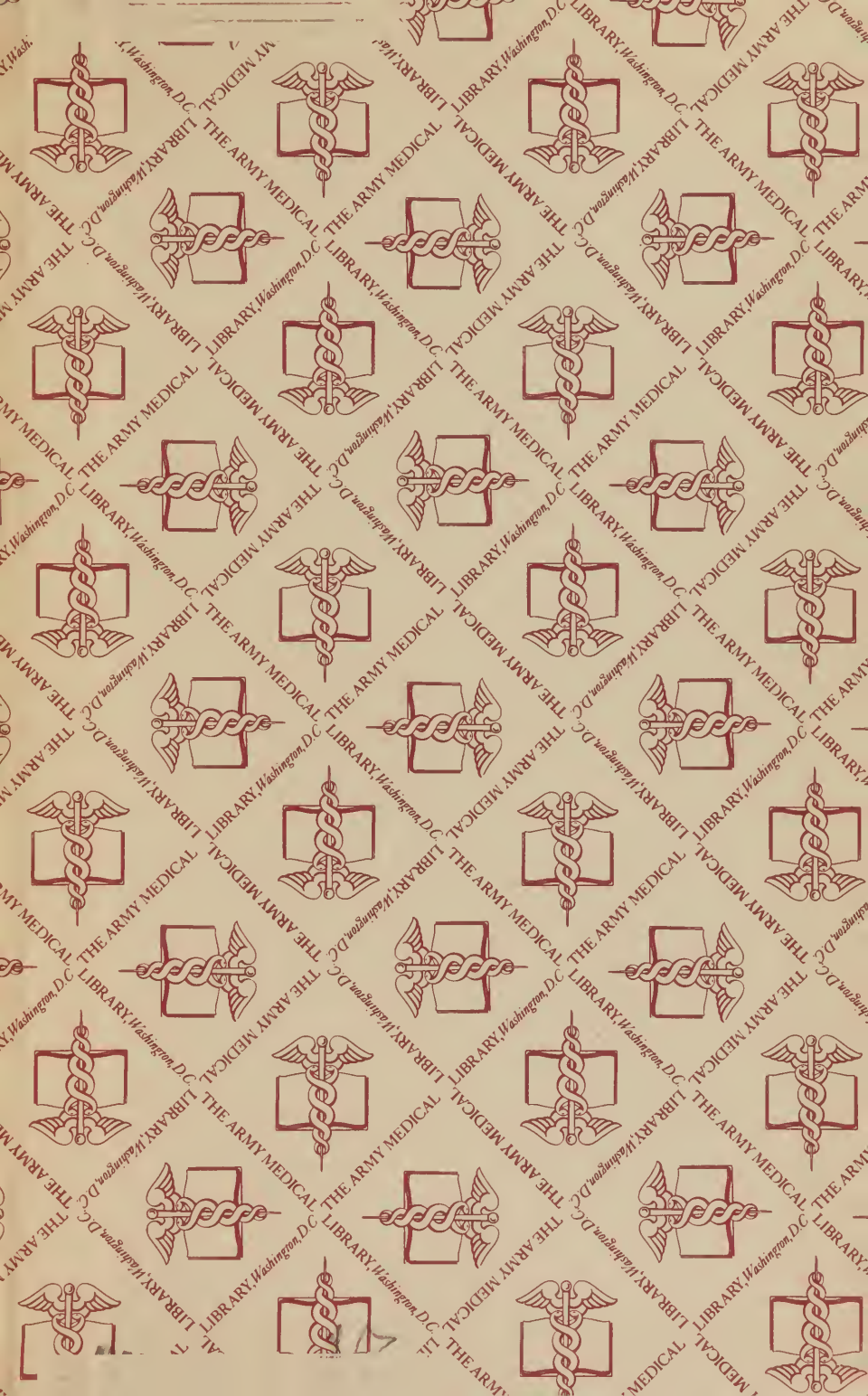
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